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**Final Evaluation of TVET and Higher Education for  
Boosting Road Infrastructure Development and  
Growth of Energy Services (THE BRIDGES) Project.**

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**FINAL REPORT**

**AUGUST 27, 2020**

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## LIST OF ACRONYMS

<b>BRIDGES</b>	Boosting Road Infrastructure Development and Growth of Energy Services
<b>CARE NL</b>	Care Netherlands
<b>CBET</b>	Competence-Based Education and Training
<b>CBT</b>	Competency-based Training
<b>DAC</b>	Development Assistance Committee
<b>EU</b>	European Union
<b>IBT</b>	Institute Based Training
<b>EBT</b>	Enterprise-Based Training
<b>FGDs</b>	Focus Group Discussions
<b>GTI</b>	Garowe Technical Institute
<b>GVTC</b>	Galkacyo Vocational Training Centre
<b>HAVOYOCO</b>	Horn of Africa Voluntary Youth Committee
<b>HE</b>	Higher Education
<b>HTI</b>	Hargeisa Technical Institute
<b>ICT</b>	Information and Communication Technology
<b>KII</b>	Key Informant Interviews
<b>KTI</b>	Kismayo Technical Institute
<b>MoE&amp;HS</b>	Ministry of Education and Higher Studies
<b>NGOs</b>	Non-governmental organizations
<b>OECD</b>	Organization for Economic Cooperation on Development
<b>PTP</b>	Puntland TVET Policy
<b>PHA</b>	Puntland Highway Authority
<b>PV</b>	Photovoltaic
<b>RDA</b>	Roads Development Agency
<b>SECCO</b>	Solar Energy Consulting Company
<b>SNEP</b>	Somalia National Education Policy
<b>SPSS</b>	Statistical Package for Social Scientists
<b>ToR</b>	Terms of Reference
<b>TU/e</b>	Eindhoven University of Technology
<b>TVET</b>	Technical Vocational and Education Training
<b>TVQA</b>	Technical and Vocational Qualification Authority
<b>TVQF</b>	Technical and Vocational Qualification Framework
<b>UNESCO</b>	United Nations Educational, Scientific and Cultural Organization
<b>UNICEF</b>	United Nations Children's Fund
<b>UYP</b>	Urban Youth Programme
<b>VQA</b>	Vocational Qualifications Authority
<b>VQF</b>	Vocational Qualifications Framework

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Mulubi Asiligwa- Director



CARE Somalia/Somaliland was funded by the European Union (EU) to improve the technical skills of the youth in roads and energy service sectors. The Technical and Vocational Education Training (TVET) and Higher Education for Boosting Road Infrastructure Development and Growth of Energy Services (THE BRIDGES) project aim to support the Government of Somalia/Somaliland plans to enhance inclusive economic growth and reduce poverty. The project aims to assist in the development of high-quality skills both for gainful employment and sustainable economic development. To meet labor demands in road infrastructure and energy sectors, the project further aims to strengthen TVET and Higher Education (HE) to offer high-quality solutions responsive to the changing market situations in the selected priority sectors of the economy. Given the increasingly dynamic employment market in Somalia/Somaliland, there is a need for high-quality competency-based skills development. The BRIDGES project sought to enhance the development of national and local capacities of TVET, and Higher Education linked to the road infrastructure and energy sector services. This is intended to be accomplished through the strengthening of institutional capacities in addition to aligning skills training to standardized international frameworks.

The specific objectives were to improve access to markets and social services, improve access to energy services, and enhance sustainable use of natural resources through increased availability of skilled human resources for Somalia/Somaliland's road and energy sectors. These objectives were intended to be measured through the following indicators; Availability of certificate, diploma and degree courses in road/energy sectors; Training institutes offering CBT and; trainers/lecturers trained; VQF with assessment and certification functions; Private sector participation in Vocational Qualifications Framework (VQF) and TVET system; employment rate of graduates on completion; and perception of employers of trainees on links between skills acquired and productivity gains.

The main purpose of the evaluation was to assess whether the project has achieved its objective of promoting economic growth through infrastructure development, employment creation, and sustainable natural resources management in Somalia/Somaliland. The final evaluation aimed to ascertain the relevance of the project programmatic approaches, outputs, outcomes, and overall impact. This included the intent to document achievements and constraints experienced during project implementation, best practices and lessons learned which would inform future project designs for CARE in general. The evaluation utilized the Organization of Economic Cooperation for Development (OECD) criteria (relevance, effectiveness, efficiency, sustainability) to specifically assess the following areas:

- i. The extent to which the recommendations of mid-term evaluations have been translated into action
- ii. The extent to which the response has been relevant to the needs of the youths and the private sector in Hargeisa, Mogadishu, Kismayu, Galkacyo, and Dhusamareeb within Somalia
- iii. To assess and report on the performance and results achieved (intended or unintended, positive and negative) of the project against the OECD DAC criteria, in particular, explore the overall effectiveness and contribution of the "The BRIDGES Project Model" to economic growth, employment creation, and sustainable natural resources management.
- iv. To identify best practices and lessons learned, with a focus on the modality, skill transfer mechanism, accountability to beneficiaries as well as the social cohesion between the host community and the refugee population.

**Methodology:** A mixed methodology approach combining qualitative and quantitative techniques was used for this evaluation. All the 477 (365 male, 112 female) trainees both certificate and diploma enrolled for the TVETs skills project, and 64 (60 male, 4 female) university trainees were targeted for the evaluation. A total of 414 trainees survey was conducted (404 TVETs trainees, and 10 University trainees). For the TVETs, sampling of the TVETs graduates was done using census approach as attempts were made to reach every graduate who enrolled in the programme. The enrolment database list and contacts were used for each region. For the Universities, attempts were made to reach all the 64 trainees, however, due to COVID-19 restrictions and closure of Universities, only 10 Gollis trainees were reached for interviews. Quantitative data tools were used to collect numerical data, measuring the achievement of the indicators as per the results framework: TVET Trainee Survey Tool; TVET Manager Data Extraction Tool; Care Staff Data Programme Data Extraction. The qualitative techniques comprising semi-structured interview guides for Key Informant Interviews (KIs) was used to collect in-depth information on programme design, interventions,

relevance, efficiency, effectiveness, impact, and coordination. A total of 33 KIIs that targeted TVET Centre Managers, TVET trainers and assessors, CARE project staff, Local employment authorities, road construction authorities, private sector companies (Road Construction and renewable energy), Ministry of Education TVET Director (for each region), Ministry of Youths officials and TU/e technical team were conducted. Equally, a comprehensive desk review of relevant project documents including the project proposal, project baseline report, project &E framework, project interim and monthly reports, TVETs; TVET Strategy 2018-2022; TVET operational manual; field monitoring reports; and the labor market report were examined.

Additionally, the Organisation for Economic Co-operation and Development (OECD), Development Assistance Committee (DAC) evaluation matrix was used to formulate questions on the relevance, efficiency, effectiveness, coordination, impact, and sustainability of the project. The indicator log frame was also used to compare findings against set targets. To ensure data quality, 12 enumerators were recruited and trained on the data collection tools including how to collect quantitative data using Open Digital Kit (ODK). A pilot test was conducted to enhance the reliability and validity of evaluation tools and the ODK platform. Findings have been presented using tables, figures, prose narrative, and direct quotes.

## Summary of the Findings

### Result Area I: Increased equitable access to private sector-led and competency-based skills development opportunities linked to road infrastructure and energy services for youth.

**Provision of Certificate, Diploma and Degree level training in roads and energy services:** This result area focused on increasing access to private sector-led competency-based skills development that is linked to road infrastructure and energy services for youth. Using the labour market assessment, the BRIDGES project identified and targeted to establish four training courses (2 certificates and 2 diploma) in four TVET centers (*Havoyoko TVET centre, Galkacyo TVET centre, Halye Barrise TVET centre, Kismayo Training Institute*) across Somalia (Somaliland, Puntland, Jubbaland, and Mogadishu). The courses implemented under the BRIDGE project include a certificate in road construction, and a certificate in solar energy; a diploma in road construction, and a diploma in solar energy. The certificate level curriculum had three levels (I, II, III). These levels are based on the vocational qualification framework (VQF developed in 2011) adopted from Puntland and Somaliland, however, the VQFs only cover renewable energy to diploma level and not road and construction skills training. The action aimed to identify 500 (30% women) unemployed and unskilled youth and provide them access to demand-driven and competency-based skills development training opportunities that is appropriately targeted to disadvantaged youth and young women. The target and reach are broken down as follows;

**Craft/Certificate level training in priority occupations related to roads infrastructure and energy services:** The project targeted 300 (30% women) target beneficiaries for Craft/Certificate level training, 306 (238 male and 68 female) composed of 174 (135 male and 39 female) in renewable energy, while 132 (103 males, 29 females) were enrolled in road construction skills training, out of which, 32 trainees dropped out (28 males, 4 female), out of which, 13 dropouts from renewable energy skills training were all male, while for road construction, 15 dropouts were male and 4 females.

**Diploma level training in priority occupations related to roads infrastructure and energy services:** The project targeted 150 (30% women) target beneficiaries for Diploma level training. At the beginning of the project, the enrolment was oversubscribed by 114% as 171 (127 male, 44 female) trainees were enrolled (70 roads, 101 renewable energy). However, 56 (46 male, 7 female) trainees dropped out of the diploma skills training programme leaving a total of 115 (78 male, 37 female). The main reasons provided included: (1), Relocation to other regions which made it difficult for the trainees to continue with the programme; (2). Left the programme for higher institutions of learning inside and outside Somalia; (3). Female dropouts were attributed mainly to marriage and family obligations.

One of the challenges associated with the TVET skills training was that **the majority of trainees preferred the training materials to have been translated into the Somali language.** The course

content was offered in English language. Trainees found it difficult to engage as majority of trainers and instructors some who were non-Somali. However, the challenges was mitigated through the use Somali speaking tutors who offered extra coaching and mentorship that helped the trainees to understand the training content and to successfully complete their courses. Secondly, female students were hard to recruit due to cultural norms on employment, intensive labour workforce, and role of women in social economic development. Somalia cultural norms dictate that employment and intensive labor roles be left for men. The discordance in the cultural norms made it difficult to recruit and retain female trainees in the programme due to fear of community backlash.

**Degree level training in priority occupations related to energy services:** The BRIDGES project also helped to establish degree-level skills training in the renewable energy sector. The project targeted 50 (30% women) target beneficiaries for degree BSc electrical engineering and renewable energy, 64 (60 male, 4 women) university trainees were enrolled for BSc electrical engineering and renewable energy. Of the students, 25 (23 male, 2 female) of the trainees are undertaking their degree course at Gollis University while 39 (37 male, 2 female) are at Somali National University in the first year of enrolment. The students were expected to finish in June 2020 but course work has been affected by the COVID 19 pandemic. However, there are plans to use online teaching to cover the syllabus and administer the exams. Despite the extra enrolment, the project supported a maximum of 50 students (25 from SNU and 25 from Gollis) by paying for fee and training requirements (which was limited to 5 new core units developed under the programme)

Some of the challenges associated with the degree programme included the following: First, the **Electrical Engineering degree programme experienced massive delays that effected effective programme rollout, lecturers training, student onboarding, EE laboratory equipment setup, and capacity building on university staff on the operation of the labs.** Approval of the programme and course by MoE took longer than expected. Secondly, security challenges around Mogadishu made it impossible for TU/e technical team to physically visit SNU as was scheduled in the implementation plan. Thirdly, the procurement process of equipment for the EE Labs had twofold challenges. First, CARE required TU/e to strictly adhere to EU procurement guidelines, to which, TU/e felt CARE was too overbearing on the issue, as TU/e internal processes are always compliant with EU guidelines, while the TU/e team also experienced a lack of clarity about the precise CARE procurement requirements. On the other hand, CARE felt they were just doing their job by enforcing compliance. As a result of the back and forth between CARE and TU/e on the issue, the process lasted for nearly six months before they could agree on the process nitty-gritty requirement. The decision making on equipment to be acquired for the universities was also much more laborious than expected since the Somali universities were not forthcoming with their own preferences without much coaching from the TU/e team, most likely mainly owing to the initial low level of relevant specialized knowledge of the local staff. In the case of one university, eleven skype meetings were held before a final list of equipment could be drawn up and agreed upon, and the experience with the other university was similar.

**Employers participating in training process:** The BRIDGES project sought to increase the number of employers participating in the training process and offering practical lessons through apprenticeship and internships. CARE, and Ministry of Education entered into a Memorandum of Understanding (MoU) with three (3) private sector companies (Somtel, Necsom, and Sompower) and further 13 private sector companies were brought on board (Annex II, III, IV).

**Apprenticeships and work placements for graduate trainees:** The project aimed at linking 450 craft/certificate and Diploma level trainees to the relevant private companies (energy and roads) and Roads authorities to enhance their practical skills. In Mogadishu: Hayle Barise Technical Development Centre: 50 (19 road construction and 31 renewable energy) certificate trainees (47 Male, 3 Female), and a further 50 (46 male and 4 female) diploma trainees completed their internships; In Somaliland, 77 (56 male, 21 female) certificate graduates received apprenticeship, and a further 31(21 male, 10 female) diploma trainees were absorbed by the same companies. In Puntland, 47 (33 male, 14 female) certificate trainees of Galkacyo VTC received apprenticeship, and further 29 trainees (19 male, 10 female) received apprenticeship. In Kismayu; 33 (27male, 6 female) certificate trainees completed the apprenticeship, and further 29 (15 male, 14 female) received apprenticeship. Overall, 346 (264 male, 82 female) trainees completed apprenticeship – 207 (163

male, 44 female) certificate trainees and 139 (101 male, 38 female) diploma trainees. The relationships with the private sector companies were relevant, as TVET institutions do not have adequate labs or facilities to offer practical lessons. The private sector companies' engagement was not efficiently done in the first half of the project due to demands that were made by the companies for compensation. However, round table discussions with MoE, CARE and the companies resolved the issue, and the engagement resumed. The apprenticeship and internship offered under the tutelage of these companies was effective as majority of trainees indicated they gained valuable skills and were able to practise in work environment. Despite the success of the apprenticeship programme, the opportunities were still minimal despite later stage onboarding of private sector companies. As such, 33 (11 male, 22 female) of the trainees who completed could not access apprenticeship due limited opportunities in road construction and nascent capacity of private sector organisations.

### **Trainees Employment Status (Tracer Study Annex I)**

This tracer study sought to examine graduate trainee employment status after completion of the BRIDGES skills training programme. Based on the findings, the majority 285 (71%) of trainees who completed the programme are unemployed. The findings further revealed that 76 (19%) who are self-employed; 36 (9%) who are employed in the formal sector, and 8 (2%) who are unpaid workers. Jubaland had the highest number of graduate trainees who were in informal employment (24%), followed by Mogadishu (16%), Somaliland (6%) and Puntland (4%). Those in self-employment, Somaliland recorded (24%) of graduates, followed by Jubaland (24%), Mogadishu (16%) and Puntland (6%). For those unemployed, Puntland had the highest percentage (88%), followed by Jubaland (73%), Somaliland (65%) and Mogadishu (63%). Mogadishu and Somaliland have a relative employment comparative advantage compared to Puntland, and Jubaland for the following reasons: Mogadishu is the capital city with relatively developed private and public sectors, serves as headquarters for most international organizations, NGOs, and local organizations and thus, has more employment opportunities. Somaliland on the other hand has been a semi-autonomous that has enjoyed relative peace and stability compared to civil strife in Puntland (Galmudug) and Jubaland (Kismayo Al-Shabab challenges).

The main reasons for unemployment included (1). Covid-19 restrictions that led to lay-offs due to closure of companies; (2). Fewer employment opportunities in Somalia public and private sectors; (3). On-going apprenticeship and internships yet to be completed before trainees could actively seek employment

### **Graduate Trainees Levels of Incomes and Livelihoods**

The tracer study examined the levels of income for graduate trainees. The findings show that majority of respondents (52% male, 19% female) earned less than \$100 per month; (10% both male and female) earned between \$100 - \$200 per month; (2% male) earn between \$201 and \$300; (1% male) earned between \$301 and \$400 and finally, (8% male, 2% female) earned more than \$400 dollars per month

### **Graduate Trainees Employment by Sector**

For the 116 graduates who were in some form of employment, we examined the types of employment sectors they were engaged in. The findings show that majority (66%) of those employed are in the private sector out of which Somaliland had (86%); Puntland (60%), Mogadishu (54%), Jubaland (52%). Those in public sector employment constituted (16%), out of which (7%) were in Somaliland, (11%) in Mogadishu, and (41%) Jubaland. The local government had employed (4%) of the graduates, out of which, (10%) were in Puntland, and (11%) in Mogadishu

### **Graduate Trainees Training and Employment Satisfaction**

Graduate trainees were asked whether they were satisfied with their current job or job prospects after graduating, 333 (83%) representing (260 male, 73 female) were satisfied or somewhat satisfied compared to 68 (17%) representing (36 male, 32 female) who were dissatisfied with their current jobs or future job prospects. Level of dissatisfaction was mainly with those who were frustrated for not securing a job after training.

### **Level of Satisfaction with Current Job /Future Job Prospects**

Majority, 333 (83%) representing (260 male, 73 female) were satisfied or somewhat satisfied with their current job or future job prospects after graduating compared to 68 (17%) representing (36 male, 32 female) who were dissatisfied with their current jobs or future job prospects. Level of dissatisfaction was mainly with those who were frustrated for not securing a job after training.

## BRIDGES Skills Training Vs Market Skills Requirement (Tracer Study Annex I)

Based on the baseline survey that was conducted at the beginning of the project, The BRIDGES project had identified low quality of skills training in renewable solar energy, however, road's construction skills training did not exist. The labor market skills deficit was unfairly skewed against female trainees in skill areas that are usually the reserve of male counterparts. At the beginning of the project (Mogadishu, Kismayo, Galmudug, and Hargeisa, there were fewer to no female trainees in the and renewable energy skills training and employment. BRIDGES managed to enroll 68 (22%) female youth in roads and renewable energy certificate training, and 44 (26%) female youth in roads and renewable energy diploma skills training. Discussions with employers and the Ministry of Education, Ministry of Youth, Gender and Labor revealed that:

- i. **Skills were Relevant: - The perception of employers** for both roads and renewable energy sector was that: (a). The skills were relevant; (b). Trainees were well-trained both for curriculum competency based and also dual-based (apprenticeship); (c). The trained youth met employers' educational requirements both for roads and renewable energy in all the regions. **The perception of Ministry of Education, Ministry of Youth and Labor** was that the skills training was relevant as the trained youth had boosted availability of skilled personnel in roads and renewable energy labour market that had significant gap. **Perception of the trainers** was the roads and energy skills training was relevant as this had enhanced available skills in the market, which will reduce Somalia relying on external expertise on the same.
- ii. **Practical Lessons and Internships were Essential:** - Practical lessons provided under the project were essential for introducing the youth trainees to the realities and required skill sets for their chosen vocation. Most of the trainees in all regions received practical lessons and appreciate the impact the hands-on skills training had on their career path. For those who are employed (Private, public and self-employment) entered into the job market well prepared for work. **The perception of private sector companies** for both roads and renewable energy sector noted: (a) increase in reliability of trainees to accomplish tasks due to practical lessons; (b). Increased confidence in trainees at work; (c). increased productivity while using variety of field work tools for both roads and renewable energy sectors. **The perception of Ministry of Education, Ministry of Youth and Labor** on practical lessons was that: (a). Trainees got opportunity for hands on experience; (b). Hands of experience was the driving factor for most of the self-employed trainees as they had confidence to accomplish market level labor assignments and work; (c). Practical lessons had strengthened market skills training collaborations between the TVETs and the private sector companies, which enhanced reliability of graduates from the participating TVETs under the project. (d). For the roads sector, women had been sidelined for a long time due to cultural biases. However, BRIDGES had made it possible for communities to change their perception on the role of women in high labor-intensive sector like roads construction. (e). Female trainees had increased confidence competing for jobs that were perceived as a reserve for men such as the roads and renewable.
- iii. **Labor market Supply Vs. Demand Perspectives:** - Skills training in solar and renewable energy sector and roads and construction have a demand and supply incongruity in Somalia. Whereas the skills are less in the market, other market dynamics such as social political and development initiatives inhibit synchronous absorption of the supply of the skills. For instance, conflict, Al-Shabab, regional and national political instability have made it difficult for major companies to invest in Somalia. The energy sector is greatly under-developed, yet few companies exists or are willing to invest large networks that would cater for the demand and supply needs. Lack of stable operational environments make it difficult for both private and public firms to seek external capital investments, thus create less jobs that can absorb graduates. Additionally, high employment levels by Somalia youth and adults means that majority of the population are not able to afford high energy costs, or adopt the sustainable renewable energy solar due to poverty. This factors not only inhibit the supply and demand curves, but also This is one of the reasons that explains the large number of unemployment among BRIDGES graduates.
- iv. **COVID-19 Challenges** – COVID-19 restriction had disrupted the transition of trained youth into the labor market as majority of roads construction firms and renewable energy firms closed shop. The impact of this disruptions did not only affect companies' ability to recruit graduates, but also

graduates ability to engage in self-employment, nor seek more apprenticeship opportunities. By the time of this tracer study, a decrease in demand for solar repairs, installations, maintenance was reported by renewable energy graduates, while the roads construction graduates found it difficult to access employment opportunities as the few companies and road construction authorities had limited operations, and in most cases, placed indefinite halt on road construction works.

## Factors Influencing Youth Unemployment in Somalia

Despite the skills training, the following factors were highlighted as a hindrance to effective youth employment in Somalia:

1. **COVID-19 Disruptions** – As noted in the earlier section, COVID-19 restriction had negatively impacted renewable energy and road construction firms' operations. The normal demand for services had decreased (solar repairs, installations, maintenance for renewable energy). For roads construction, graduates found it difficult to access employment opportunities as the few companies and road construction authorities had limited operations, and in most cases, placed indefinite halt on road construction works. Travel restrictions has made it difficult for trained youth to seek employment and livelihood opportunities in other regions.
2. **Underdeveloped Formal Sector:** - The formal employment sector is still highly underdeveloped and therefore, can only absorb few graduate trainees. This leaves the vast majority (seeking formal employment) to fend for themselves. For instance, out of the Kismayo does not have a single registered construction company, which makes it difficult for road sector graduate trainees to seek employment opportunities in formal setups. Other regions such as Puntland, Mogadishu and Galmudug have established formal sector companies both in the renewable energy sector and roads construction, however, the level of private and public sector investment on development initiatives are very low, which makes it difficult for the formal sectors to absorb all the trainees entering into the skills labor market, despite their qualifications. Mostly, engagement is done on short term to long term contract basis.
3. **Set-Up and Operational Costs:** - A tool kit was provided for both the renewable energy and roads construction graduates (solar energy trainees got a technician's tool kit, overcoats, helmets, while roads construction trainees got an overcoat and helmet. However, this was not accompanied set-up and operational costs necessary for establishing entrepreneurial ventures. In as much as this startup kits were very essential and have placed a big role in getting the trainees with the basic tools, it was not sufficient to launch them into successful entrepreneurship. The cost of starting an entrepreneurship higher that the graduates can afford. Secondly, for the roads construction, startup is not possible, as the sector requires large sums of capital in road construction equipment, only affordable to big and established companies.
4. **Cultural Biases:** - Young women graduate trainees are finding employment more difficult due to cultural biases and traditional gender roles. Male trainees are culturally required to work outside the home to provide for the family, whereas the female trainees are still required to do domestic work, which restricts their chances and opportunities for employment. Secondly, it is culturally easier for a male trainee to be employed than a female trainee.
5. **Clannism:** - In Somalia, the clan you belong too sometime determines whether you get a job or not. Jobs and opportunities are negotiated and awarded based on clannism, and nepotism, which makes it difficult for youth, perceived to be outside the clan to secure much needed employment opportunities.
6. **Lack of experience:** - Despite the BRIDGES project efforts to link trainees with companies for internships, majority were not retained or absorbed at the end of the project due to lack of adequate financial capacity for the firms to absorb trainees onto their payrolls.
7. **Inadequate Government Policies on Youth Employment:** - Both national and regional government have policies on youth training and employment. However, these policies have not been accorded adequate implementation resources. For instance, there is lack of government investment

in youth skills training, lack of adequate pool of skilled TVET trainers, and lack of incentives such as tax rebates / breaks for private sector firms providing apprenticeship and employment of youth trainees.

8. **Inadequate Government Resources and Capacity:** - Somalia national and regional governments are not adequately resources. Years of internal conflict, Al Shabab insurgency, poor development of tax and revenue collection systems, and underdeveloped private and public sector capacities have perpetually hindered significant investments into factors of production (land, labor, capital, and entrepreneurship) that can enhance youth employment.
9. **Insecurity:** - Some of the regions covered by the BRIDGES project (Mogadishu, Galmudug, and Kismayo) have serious security and internal conflict challenges. Insecurity in these regions has led to slow reintegration of IDPs to normal society livelihoods as majority of IDPs and refugees in these regions lack access to jobs or employment opportunities. In other regions such as Galmudug North and Galmudug South, lack of trust among the region clans make it difficult for trained youth to seek opportunities beyond the demarcated sub-regional boundaries (between North and South).

### Impact of BRIDGES Skills Training on Youth Livelihoods

The following are some of the ways the tracer documented the impact of the skills training on the long-term livelihoods of youth under the BRIDGES project.

1. **Increase in Economic Opportunities:** - Despite the fact that majority of respondents 208 (52% male, 76 (19% female) earned less than \$100 per month; 42 (10%) male and 20 (10%) female earn between \$100 - \$200 per month; 8 (2%) male earn between \$201 and \$300; 4(1%) male earn between \$301 and \$400 and 34 (8%) male, while 9 (2%) female earn more than \$400 dollars per month, the project has had significant impact on trainees livelihoods. The tracer study findings show that the BRIDGES skills training has provided significant new economic opportunities, particularly for female youth (22% and 26% in renewable energy) who had been sidelined from male dominated highly technical labor market skill areas such as the renewable energy and roads construction. Some of the sited impact include: (a). Earning incomes has reduced levels of poverty among the youth; (b). 19% of trained youth are in self-employment entrepreneurship; (c). Youth both in formal, informal, and self-employment reported they use their incomes to support their family daily food requirements, education for their siblings, and healthcare for their family members.
2. **BRIDGES Project and Self Esteem of Female Graduate Trainees:** - The BRIDGES project has contributed to the improved the self-esteem of female graduate trainees by strengthened the feeling of social female value to socioeconomic development and contribution to society. Secondly, by enabling female graduates to generate their own income has significantly increased levels of self-respect, perceived respect from others and feelings of engagement/cohesion within their community.
3. **Improved Employment Prospects:** - The BRIDGES project has contributed to the increased employment rates (both formal and self-employment) recorded in all regions. Prior to the project, Somalia youth unemployment rates was 68% (UNDP, 2018). Data on 2019-2020 unemployment rates is yet to be documented. However, based BRIDGES graduates' trainees' employment (formal, informal, self-employed), skills training has provided them improved prospects earning a better livelihood through the living wage /salaries they earn. For the trainees who are unemployed, BRIDGES project had provided them skills training and knowledge they will be able to use to access future labor market opportunities, including entrepreneurship.
4. **Reintegration of IDP with the Host Communities** –There has been an increase in social cohesion opportunities between IDP and host community trainees as they were selected to study together. This approach helped to promote good relationships, exchange of investment ideas and sharing of resources

**Trainees assessed & certified based on VQF:** The action targeted 450 (300 certificate, 150 diploma) craft/certificate and Diploma level trainees. Instead, the action enrolled 477 (306 certificate, 171 diploma) or 365 male, 112 female) trainees who went through the competency bases and dual mode training

approaches. However, 379 (275 male, 104 female) of the trainees successfully completed their craft/certificate and Diploma level courses conducted through dual mode and CBT materials developed under the project. All the 379 (264 craft/certificate, 115 diploma) trainees were assessed and certified in collaboration with the respective VQAs. In order to achieve this, 42 (38 Male and 4 Female) participants from the MoE, TVET Directorate, Examination Department, TVET assessors from TVET centres and the private sector were trained in assessments and certification as part of the broader initiatives to improve quality of competency-based training in the TVET institutes. All the 404 TVETs trainees interviewed demonstrated the competencies gained during their traineeship. Worth noting is that 115 (78 male, 37 female) are yet to receive their certificates and skill passports – in light of the COVID 19 pandemic, arrangements are underway to handover this task to the relevant ministries of each region.

**Capacity building courses for existing staff in the roads sector:** The action targeted 15 regular and middle level staff working in the relevant ministries in charge of Roads. In total, 69 (56 male, 13 female) roads staff were trained on weighbridge management, laboratory and material testing, roads construction management and road surveying. The action trained 27 (22 male, 5 female) road staff on the operationalization of the axle load control equipment, a weighbridge equipment supplied by GIZ. Of these 17 (15 male, 2 female) were from the Roads Development Authority (RDA) while 11 (7 male, 3 female) were from Puntland Highway Authority (PHA). Another training was conducted for Roads Development Authority (RDA) on laboratory, material testing and analysis for 11 (10 male, 1 female) middle level staff. Further, 31 (24 male, 7 female) roads staff were trained on road construction project management. Of these 12 (8 male, 4 female) were from RDA, 4 (all male) were from Kismayo and 15 (12 male and 3 female) were from Puntland Highway Authority (PHA). A further training was conducted for 13 (12 male, 1 female) staff from RDA (9) and Kismayu (4) on road surveying works. Last but not least, 10 (10 male, 0 female) road officers from the Kismayo public works department, RDA, PHA and Mogadishu were supported through a one-week exchange program with the Ministry of Works and Transport in Uganda. This provided opportunity to interact with different departments, companies, and institutions dealing with roads in Uganda. The Engineering Management Institute (EMI) trained the officers on Road Sector Development and Management focusing on emerging road development management strategies. Overall, the trainings were selected by the respective Roads Authorities based on capacity assessments conducted in close collaboration with the above-mentioned stakeholders in each region. Based on the study findings, these training and capacity building were very relevant since RDA and PHA had not yet established the competencies and capacities for internal training and skills building on the same. Discussions with PHA and RDA revealed significant improvement in the efficiency and competency of their trained staff as the authorities now do not have to rely on external expertise, as was the case before the capacity building.

**Scholarships for underprivileged and marginalized students:** The action aimed to provide scholarships to 234 (184 certificate/diploma, 50 undergraduate degree) deserving trainees from poor families with a focus on female trainees. However, the action reached 222 (123 female, 99 male) or (108 certificate, 112 diploma) were supported with USD 50 prorated based on training attendance over the training period. The male beneficiaries comprised 40 from Galmudug, who were pursuing courses in Mogadishu and additional 68 male beneficiaries pursuing diploma courses following that MTR recommendation targeting all male trainees. The scholarship funds for SNU and Gollis had been disbursed with each university receiving 27,000 euros. For Gollis, the scholarship was initially meant to cover 25 students, however, according to the university administration, these funds could only cover 15 students adequately, and not 25 as initially planned. This was based on training cost analysis at the institutional level. The remaining 10 students were supported by the institutional funds. On the other hand, 39 students from SNU equally benefited from the funds. Challenges associated with university scholarship grants was the late disbursements. The scholarship funds were disbursed in the last quota of 2019; three semesters after the university programme had already started. SNU did not have many challenges on the same since public funds available for university programmes utilized to keep the programme moving. On the other hand, Gollis registered frustration with the late disbursement arguing that students required access to the funds as soon as the programme commenced since the university did not have access to alternative public funds to cover for students' expenses

Other than the scholarships, the action provided extra stipends for certificate, diploma and undergraduate trainees to cover transport and living costs. The findings show that out of 112 female students who benefited, 92.8% or 104 successfully completed their craft/certificate and Diploma level courses compared to male

trainees where only 75.3% of them managed to complete. The scholarship initiative helped retain the female trainees to complete the roads and renewable energy engineering courses.

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## **Result Area 2: Strengthened Capacities of Training Providers, Lecturers, and TVET Trainers to Deliver Market-Oriented Skills Training to Meet the Immediate and Emerging Labor Market Demands within Road Infrastructure and Energy Services**

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**Competence-Based Training and Assessment (CBTA) packages:** A total of **12 CBT packages have been developed to enhance the capacities of TVET skills training curriculums. CARE International in consultation with the MoE&HS in all regions**, has developed a curriculum packages for road infrastructure and energy courses that are already in use in all the four TVET institutes. The 12 CBT packages comprise;

- a) Certificate in Road Construction: Road Construction Technology Levels I, II and III; Asphalt Paving Technology Levels II and III; Heavy Equipment Operations Levels I, II and III; Heavy Equipment Technology Levels I, II and III; and Surveying Technology Level II
- b) Diploma in Road Construction: Diploma in Road Construction Technology Levels IV and V
- c) Certificate in Renewable Energy: Solar PV System Technology Levels I, II and III, Solar PV System Design Levels II and III; Solar PV System Services Levels II and III; Solar PV System Sales and Marketing Levels II and III; Solar PV System Installation Levels II and III
- d) Diploma in Renewable Energy: Diploma in Renewable Energy Levels IV and V

A CBET curriculum to enhance business and entrepreneurship knowledge to graduates was developed for all the TVETS. Based on discussions with TVET trainers, assessors, and trainee, the curriculums added significant value to the quality of the skills training. The compacted nature of the certificate and diploma courses made it difficult to teach all units under the CBET curriculum (the time allocated for the certificate and degree courses was less. The core courses had already consumed most of the training timetable. Introducing CBET courses added more load to the already stretched programme, resulting in cases where some CBET units were skipped from semester to the next. However, to compensate for the omission, missed courses in a particular semester were taught in the successive semester. Further, a consultant was recruited to reviews the competency-based curriculum in renewable energy both for certificate and diploma. **Trainees in employment (private, public, and self-employment) indicated that the entrepreneurship and business skills training had positively influenced their work outcomes.**

**Competency-based curricula in the field of energy services for universities:** The action aimed to conduct a capacity need assessment in targeted universities, which was concluded through consultations between TU/e and the universities (Gollis University in Somaliland and Somali National University in Mogadishu) and in the case of Somaliland also several face to face interviews with market parties on the demand side of the energy/ electricity sector. The assessment informed the development of curriculum for degree courses, the selection of undergraduate trainees and the identification of the lecturers training needs. The TU/e team finalized the development of BSc electrical engineering and renewable energy curriculum. The curriculum identified five core fields of expertise for training and procurement of the lab equipment for the universities.

- a) Renewable Energy Technologies
- b) Design of Low Voltage Installations
- c) De-central Power Generation
- d) Power Quality Monitoring and Mitigation
- e) Electricity/Energy Economics

Further, TU/e trained Gollis and SNU lecturers in these topics on the BSc electrical engineering and renewable energy curriculum and coached them to draw up their own lesson plans. The training was conducted in Mekelle Institute of Technology (MIT) in Mekelle, Northern Ethiopia where 11 comprising Six (6) lecturers from Gollis University and five (5) lecturers from SNU participated in the training. Seven different trainers with different specializations conducted the training. The laboratory equipment is modern and new hence the lecturers will still require technical support from TU/e beyond the life of the project. This is currently ongoing and expected to continue at least through the coming academic year (2020-21),

since new questions tend to arise when the equipment is used for the first time, even though user training on the same types/makes of equipment was provided earlier at MIT and during a lab installation mission at Gollis University in Nov 2019, in which 2 SNU staff members also participated.

**Pedagogical Training for TVET Trainers:** The training targeted 22 TVET trainers (9 from Somaliland and Puntland each and 4 from Jubaland). However, actual trained trainers/ instructors were 42 (34 Male, 8 female) trainers including those from other departments had been trained so far. The action began with a capacity development needs assessment in each TVET Institute to identify the skill areas for skills upgrade and the design of a competence-based curriculum for training of TVET Trainers. In addition, a refresher training for 12 (11 male, 1 female) TVET Instructors on pedagogy and teaching tactics. This comprised 4 from Hargeisa, 4 from Galkacyo and 4 from Mogadishu. The training was effective. Discussions with instructors trained under the project revealed that all of them had developed lesson plans and schemes of work, which had improved the learning outcomes of the trainees. More so, the training had enhanced the confidence of the instructors in content delivery as a result of skills acquired in the structuring of lessons, formulating teaching objectives, lesson aids, and practical demonstrations before class instruction would begin.

**Skills mastery and upgrade training to TVET Trainers:** The action aimed to upgrade the technical skills and enhance pedagogical capacities of 22 TVET trainers to deliver high quality trainings by enabling them to acquire the required skills and competencies for facilitating and assessing desired learning outcomes in line with the new curricula for identified skills within the roads and energy sectors. As a result, the project recruited six (6) master trainers from Kenya and Uganda who were based in Hargeisa and Puntland. The master trainers offered training and mentorship to local trainers to build and improve their skills and mastery of training content as well as supported in the delivery of practical sessions as well as periodic assessment of trainees. The regions of Mogadishu and Kismayo recruited local master trainers due to security challenges that limited expatriate master trainers from the neighbouring countries from accessing these two regions. The TVET trainers indicated that they had benefited from the master trainer's mentorship, particularly the use of practical lessons teaching aids. The master trainers would also be available in classes during trainers' class lessons and would provide constructive feedback on content delivery, class preparation, and other practical aspects of the teaching that trainers required. As such, the sustainability of skilled TVET trainers in the sector is guaranteed, to the extent that a cadre of master trainers capable of passing on their skills to other trainers exist in all regions.

**Training of TVET Instructors as Assessors:** Under the BRIDGES project, at least 22 TVET instructors/trainers were targeted for training as assessors. The purpose of assessors training was to develop competence-based assessors who could offer effective support and assessment and certification of trainees of the TVETs trainees for better learning outcomes. The assessors would then participate in the developed training resources, quality assurance, and TVET standardization mechanisms. The action trained 42 (38 Male and 4 Female) a team of assessors and verifiers including the 22 TVET trainers on assessment, certification and apprenticeship so they could conduct a more professional and structured supervision. The participants comprised teams from the MoE, TVET Directorate, Examination Department, 22 TVET trainers from TVET Centers and the private sector. The training helped improve evaluations of competency-based training in the TVET institutes. This was demonstrated through the several independent assessments conducted by the stakeholders above. For example, assessments were conducted for trainee's apprenticeship in Galkacyo focusing on attendance sheets and field attachment logbooks while in Somaliland, the assessors visited and assessed Havoyoko certificate graduates as a way of enhancing quality assurance checks required for all certificates and diplomas. Therefore, the training was effective. Overall, the trainings have improved the instructor's capacity to perform the duties of assessors.

**Provision of research/practical equipment to SNU and Gollis University:** Both SNU and Gollis have the EE Labs completely installed and functioning. Some of the impact noted with the completion of the Labs include: Enhanced Practical Lessons: - Before the installation of EE Labs, both universities had very basic renewable energy lab practice equipment, which made it difficult for the trainees to learn and gain practical skills relevant to the labor market. The new labs under the BRIDGES project have made it possible for the trainees and lecturers to gain access to cutting edge modern equipment and tools and can practice different installation designs and simulations. The EE labs have increased the universities' research capability in the renewable energy sector due to the high-quality state of the art equipment and technology. Functional EE

Labs have provided enough capacity to enrol more students for degree programmes in renewable energy. The current batch is set to graduate in 2022. At its request SNU additionally received a set of 15 hard copy textbooks covering the core areas of BSc level Electrical Engineering, principles of renewable energy technologies, and energy economics, in addition to access to many online resources, as well as several refurbished laptops, power point projectors and laser printers. The office & education equipment was provided free of charge by TU/e. Gollis university was also offered a set of hard copy textbooks but did not take up the offer.

**Provision of equipment and training materials to 3 TVET institutes:** In Galkacyo, equipment such as electrical kits, overall coats, helmets, gloves, digital clamp meters and Tape measures were distributed to 33 (10F, 23M) trainees for their field attachment. In Jubaland, teaching and learning equipment both solar energy and road construction equipment was successfully handed over to the MoE Jubaland for distribution to students during fieldwork. The items comprised Helmets, goggles, gloves, overalls, boots and belts. In Mogadishu, start-up kits start-up kits for the certificate trainees were procured and handed over to the TVET centre for distribution to trainees upon completion of the apprenticeship. The items comprised electrical kits (hardware) for the renewable energy trainees and assorted tools such as pruning shears, monkey wrench, cutter, pliers, pointing trowel, pincers, brick hammer, plastic mallet, chisel, toolbox saw, small axe, tape measure, and plastic level for the road construction trainees

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### **Result Area 3: Skills delivery, assessment and certification standardized through further improvement and expansion of scope and coverage of Vocational Qualifications Framework (VQF)**

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**A Vocational Qualification Framework (VQF)** was supposed to be developed under the BRIDGES project so as to harmonize various regional VQFs and establish a national consistency in the way vocational skills training. This was also geared at enhancing unified accreditation and certification across all regions in Somalia. However, following discussions between CARE, EU and GIZ, the VQF component was recalled from BRIDGES project and transferred to GIZ for implementation since GIZ had significant funding and ongoing work on the same in Somalia. The unintended implication of this changes was that trainees from all the four regions were not trained using a standardized VQF as GIZ did not finalize this in time. Secondly, there was a significant inconvenience and loss of goodwill caused when the VQF component was recalled since CARE was at an advanced stage in recruiting VQF consultants in collaboration with MoE Somaliland. Finally, lack of standardized accreditation process might harm graduates seeking cross-regional employment. Somalia's regional context majorly restricts cross-border employment for purposes of protecting the development of local human capital and employment opportunities, a challenge a harmonized VQF was seeking to eliminate.

### **Key Lessons Learnt and best practices**

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- I. **Project Time and Schedule:** - The project design should cater for adequate time for each of the phases of the skills delivery to be realized. Thus, the project duration should be realistic and allow time for delivery of the formal skills particularly the Diploma and Degree courses, which need a longer timeframe to prepare and complete. The degree programme could not be executed within three years (project period) as initially anticipated by the project design. Secondly, a new university programme /course cannot be established within 3-6 months upon project commencement. Rigorous approvals processes are required by the Ministry of Education and Higher Learning, and Education Regulatory Authorities. The process was very slow and required more time for consultations, systematic approvals, course structure development, curriculum, and quality assurance approvals by regulatory authorities. **Lesson learned** is that the project should have provided sufficient lag time for components over which partners do not have direct control such as curriculum development and approval processes (which is in the domain of MoE and education stakeholders).

2. **Somalia Context Specific Challenges:** - Project design should have appreciated context specific challenges when dealing with Somalia. For instance, regional states lack effective working relations with federal government, are discorded by clannism and tribal politics that make it difficult to have a singular approach to project implementation for each region. **Lesson learned** is that for effective management of multiple regional projects should be cognizant of divergent regional governance contexts, and not adopt a one size fits all approach. Each regional office should have leeway in designing government and stakeholder's engagement strategies in the future projects.
3. **Projects Implementation at federal and state governments in Somalia:** - Somalia has both Federal and state level governance that is not fully developed, and roles well-articulated. The country's constitution is still provisional. An MoU that outlines the role of the states and the federal government in the education sector was signed with the help of EU. However, adherence to this MoU has been weak. Each state has different regulations for education sector, with made harmonization and implementing the project across Mogadishu, Somaliland, Puntland, and Jubaland a challenge. **Lesson learned:** It would have been better for the BRIDGES project to have adopted the zonal approach (similar to what EU has adopted for its education programs in Somalia) rather than cross regional approach. Future projects should follow this approach until such a time that the Federal government regulations are adopted across the board.
4. **Effective Private Sector Partnerships:** - Private sector players have interest that have to be addressed for effective partnership. The project was not flexible enough to address the private sector interests. Lack of incentives made it difficult to onboard private sector companies. In future, project partners should be flexible enough to address the mutual interest of private sector players. Incentives should not be perceived only in terms of monetary payments, but tax breaks, or capacity building of company teams. Secondly, it was difficult to hold private sector companies accountable to a particular standard for practical lessons. **Lesson Learned:** Local Somali companies have interests that should be addressed for mutual and effective engagement. Future projects should establish private companies' interest before entering into MoUs.
5. **The Project Fraud Incidences:** - There were fraud incidences reported during the project period that implicated the project manager and the project technical advisor. By the time of the final evaluation, investigations were still on-going, therefore, this report could not document the extent to which the fraud incidences had impacted project delivery. Care managers will provide comprehensive report to EU on the same once the investigations have been concluded. In future, adequate check and balance mechanisms should be in place to guarantee safeguarding of project resources from fraud incidences. This should include (but not limited to) thorough background checks for those management and procurement are providing tenders to eliminate cases of conflict of interest.

## Recommendations

The following are recommendations at the project implementation level and future programming opportunities:

1. **Phasing of TVET Skills Training:** - There is need to ensure that future projects have well-phased TVET skills training to ensure quality. First, adequate time should be allocated to the certificate programme (6-9 months), and diploma (12-24 months). This will not only ensure course units are not rushed, but adequate assessment, examining, and practical lessons are exhaustively implemented. The BRIDGES project skills training was highly compacted to ensure delivery is done within project period. Training of lecturers, tutors and assessors took place within the same period as TVET skills training for graduates. Training of assessors, tutors and trainers should come before actual skills training for graduates to ensure delivery of quality skills training.
2. **TVETs Capacity Building:** - TVETs in Somalia are still in need of capacity building. Particularly institutional management skills, infrastructural development (classes, desks, workshops, equipment) and institutional income generating projects (based on each institutional strength and profiling). Generally, most of the TVET institutions have functional classes, but with minimal tools and equipment for technical skills training. The BRIDGES project provided workshop equipment to support skills training for roads and renewable energy, however, the programme only covered two

skills training areas. Other technical skills training need revamping and equipment that is relevant to the labor market needs.

1. **Enhance University Skills Training Partnership:** - (a) A lack of capabilities to design coherent programme curricula and course outlines in general (i.e., formulating learning goals that are not only asking for factual information to be absorbed and reproduced, but also for higher order analytical thinking and critical reflexive skills to be developed). This suggests there are weaknesses at the central university level: there is a lack of professionals who support the lecturers in different departments in course and curriculum design, and monitors and evaluates quality standards in this respect. (b) a lack of capabilities and capacities in teaching electrical engineering and RES specifically. The BRIDGES focused mainly on this technical problem area, and in this regard we made progress, but it has to be said that without having the resources and time to also address the more fundamental problems listed under (a), one cannot yet achieve a quality level that is comparable to western European BSc standards. So, both these problem areas need further attention, but they require different kind of interventions. Indeed, conducting a comprehensive assessment of the new curricula that are now being taught, the need for which was expressed by the universities, can help to alleviate some of the signaled issues if the lessons are tuned well to these problems.
2. **Establish TVET Skills Training in Water and Sewerage Systems:** - Since 2017, droughts followed by heavy rains have caused significant havoc on water, and sewerage systems, yet little has been done to invest in skills training both at TVET levels, and University levels. Skills that fall within water and sewerage systems such as water system engineers, plumbers are essential and should be established. The BRIDGES programme was not supposed to cover the water and sewage systems; however, Somalia context cannot be delinked from perpetual droughts, water shortages and floods that affect other skills training and humanitarian work.
3. **Establish a Harmonised VQF:** - At the commencement of the BRIDGES programme, only Somaliland and Puntland had VQF, which had not been revised to include the roads and renewable energy skills training. One of the objectives of the BRIDGES was to help all the project regions harmonise their VQFs to ensure training standards, course units and assessment and accreditation criteria was similar. However, by the time of this final project evaluation, the harmonised VQF had not been established, including harmonised training and accreditation manuals. This component was transferred to GIZ. There is a need for the EU to follow up to ensure VQF has been implemented.
4. **Gender Sensitivity Employment Promotion Policy:** - There is a need for future programmes in TVETs skills training to help both the federal government and regional state governments to develop a gender sensitivity employment promotion Policy. At the Ministry of Education level, no policy to guides gender sensitivity training and employment promotion strategies. The existing gender policies need to be revised to include gender sensitive employment promotion strategies.

### **Project Handover**

By the time the final evaluation was being conducted, project handover to MoE, GIZ and TVETs was not yet done, however, the process had been initiated as list of hand over equipment, curriculums, trainers had been finalized, However, due to COVID-19 disruptions the process was halted. The project coordinator was in touch with the MoE and local government officials, and GIZ to establish suitable mechanisms under which the handover processes could be finalized.

## **I.0 INTRODUCTION**

### **I.1 Project Background**

Boosting Road Infrastructure Development and Growth of Energy (BRIDGES project) was funded by the European Union (EU) to improve the technical skills of the youth in roads and energy service sectors and was implemented by CARE Somalia/Somaliland. The main aim of the BRIDGES project was to support the Government of Somalia/Somaliland to enhance inclusive economic growth and reduce poverty. Additionally, the project was to assist in the development of high-quality skills both for gainful employment and sustainable economic development. To meet labour demands in road infrastructure and energy sectors, the project aimed to strengthen TVET and Higher Education (HE) institutions to produce high quality and responsive graduates to the need of the changing market situations in the selected priority sectors of the economy. Given the increasingly dynamic employment market in Somalia, there is a need for high-quality competency-based skills development. The BRIDGES project sought to enhance the development of national and local capacities TVET and Higher Education linked to the road infrastructure and energy sector services. This was to be accomplished through the strengthening of the training institutions in addition to aligning skills training to standardized international frameworks.

The BRIDGES project also sought to increase the number of graduates in TVET and Higher Education linked to road infrastructure and energy services as a way of addressing the challenges facing the TVET and Higher Education sector, particularly, lack of equitable access to education opportunities and lack of sufficient higher education employment opportunities for those qualified in road and energy sector. Additionally, according to the proposal document for the BRIDGES project, the TVET system was largely driven by the supply side without significant input from the private sector. This approach had resulted in poor quality graduates with skills not aligned with market needs. By investing in training of youth in TVETs and Higher Education institutions through the collaboration of the private sector, government and training institutions, the BRIDGES project aims to address the stated challenges roads and energy sector.

One of the other goals of the BRIDGES project was to strengthen the capacities of training providers, lecturers and TVET trainers to be able to deliver market-oriented skills training for immediate and emerging labour market demands within road infrastructure and energy sectors. The objective was to develop a responsive skills training system capable of producing graduates with high quality and relevant competency-based skills in TVET and Higher Education linked to roads and energy sectors. The prevalent gap that existed, particularly the low quality of skills training and the lack of relevance to the labour market demand was perceived to be a result of untrained or insufficient skills among providers, lecturers, and instructors in TVET and Higher Education institutions. Further, this was due to the low investment in skills training in infrastructure linked to roads and the energy sector, and the limited capacity to design, develop, and implement skills training curriculum. At the inception of the project, the skills that were available in the market were not sufficient to respond to local labour market needs. Therefore, addressing the human resource and institutional weaknesses within the TVET and Higher Education sub-sectors was essential for enhancing not only the capacity but also job market demands for skills within the road and energy services sectors. The project overall Impact is to promote economic growth through infrastructure development, employment creation, and sustainable natural resources management.

#### **Project Specific Objective**

The project-specific objective/outcome was to improve access to markets and social services, improve access to (especially renewable-based) energy services and enhance sustainable use of natural resources through increased availability of skilled human resources for Somalia/Somaliland's road and energy sectors Somali/Somaliland.

#### **Project-specific objective indicators**

- ✓ Availability of certificate, diploma and degree courses in road/energy sectors
- ✓ Training institutes offering CBT and trainers/lecturers trained
- ✓ VQF with assessment and certification functions

- ✓ Private sector participation in VQA and TVET system
- ✓ The employment rate of graduates on completion disaggregated by course, gender, and region. This should include the monthly income of training graduates
- ✓ Perception of employers of trainees on links between skills acquired and productivity gains
- ✓ Perception of employers of trainees on links between skills acquired and productivity gains

This evaluation seeks to establish the extent to which these outcome indicators have been achieved in relation to the outputs herein referred to as results indicators using qualitative and quantitative data to provide evidence of change and effectiveness of the project.

## Project Result Areas and Indicators

According to the TOR, the project result areas and indicators include:

**Result 1:** *Increased equitable access to private sector-led and competency-based skills development opportunities linked to road infrastructure and energy services for youth:*

### Result Indicators

- ✓ Number of trades identified using Labour Market Survey
- ✓ Number of employers participating in the training process (design stage to employment)
- ✓ Number of trainees trained in road/energy sectors using the CBT approach
- ✓ Number of trainees trained through “Dual Mode Approach”
- ✓ Number of trainees assessed and certified based on VQF
- ✓ Number of degree trainees trained in energy sectors using the CBT approach
- ✓ Number of Roads Development Authority staff benefiting from the capacity development and training
- ✓ Number of trainees who are benefiting from scholarship grants
- ✓ Number of TVET graduates benefiting from start-up kits

Here the evaluation will look at the outputs and how and whether they led towards immediate or long-term outcomes in terms of changes in actions and benefit accruing out of the various training.

**Result 2:** *Strengthened capacities of training providers, lecturers and TVET trainers to deliver market-oriented skills training to meet the immediate and emerging labour market demands within road infrastructure and energy sectors.*

### Result Indicators

- ✓ Number of CBT packages for road/energy developed. This should include curriculum and guidelines developed for Somali National University (SNU) and Gollis University graduates trained in electrical engineering
- ✓ Number of trainers trained on CBT in road/energy including the number of students trained at SNU and Gollis University graduates.
- ✓ Number of lecturers trained at SNU and Gollis University graduates
- ✓ Number of TVET managers, instructors, and assessors trained at the TVET centers
- ✓ No of Ministry of Energy trained on renewable energy investment and project management
- ✓ No. of TVET centers provided with equipment (Must specify the equipment and their benefit)

Here the evaluation will look at the outputs and how and whether they led towards immediate and or long-term outcomes in relation to changes in actions and benefit accruing out of the various trainings conducted. Case studies will be conducted to determine the rate of employability of the graduates when they join the job market. This will also help to document success stories, testimonies, and case studies as part of the evidence of the effectiveness of the trainings.

**Result 3:** *Skills delivery, assessment, and certification standardized through further improvement and expansion of scope and coverage of Vocational Qualifications Framework (VQF)*

**This section was handed over to GIZ, therefore, our study will focus on how GIZ has implemented this component and the impact it has had on the TVET sector in Somalia/Somaliland**

In this regard, the evaluation will look at the outputs and how they led towards the immediate and or long-term outcomes in relation to the application/implementation of the materials and the benefit to intended users.

## **1.1 Evaluation Objective**

The main purpose of the evaluation was to assess whether the project has achieved its objective of promoting economic growth through infrastructure development, employment creation, and sustainable natural resources management, Somalia/Somaliland. Moreover, this evaluation is intended to document constraints in project implementation as well as lessons learned which will inform future project designs for CARE in general.

In particular, the end-term evaluation intends to achieve the following objectives following the OECD criteria (relevance, effectiveness, efficiency, sustainability):

- v. To assess the extent to which the recommendations of mid-term evaluations been translated into action
- vi. To assess the extent to which the response has been relevant to the needs of the youths and the private sector in Hargeisa, Mogadishu, Kismayu, Galkacyo, and Dhusamareeb within Somalia
- vii. To assess and report on the performance and results achieved (intended or unintended, positive and negative) of the project against the OECD DAC criteria, in particular, explore the overall effectiveness and contribution of the “The BRIDGES) Project Model” to economic growth, employment creation, and sustainable natural resources management.
- viii. To identify best practices and lessons learned, with a focus on the modality, skill transfer mechanism, accountability to beneficiaries as well as the social cohesion between the host community and the refugee population.

## **1.2 Scope of Evaluations**

The end line evaluation was intended to cover the project implementation areas of Hargeisa (Somaliland), Garowe, and Galkacyo (Puntland), Kismayu (Juba land), Galkacyo south – (Galmudug) and Mogadishu. This evaluation included measurement of outcomes and sustainability as well as project concept and design, implementation, results, and outputs. The evaluation included the documentation of key findings including lessons learned and recommendations based on the OECD/DAC Criteria

# **2.0 TECHNICAL APPROACH AND METHODOLOGY**

## **2.1 Evaluation Design**

This study adopted a descriptive survey evaluation design. The choice of descriptive design was informed by the fact that each of the project outcomes has indicators with unique characteristics such as output numbers, percentages, and proportions of beneficiaries that needed to be measured numerically, and also the design was also able to capture perceptions and opinions that cannot be measured quantitatively. Additionally, the design was intended to document specific characteristics such as age, and gender has been represented descriptively. Secondly, the descriptive design enabled us to interact with the project beneficiaries without influencing the study characteristics. This means that researchers were able to collect data in its primary environment (from TVET Graduates, TVET Administrators, CARE Project Officers, Private Sector partners, and government officials such as TVET Directors, Ministry of Education officials, Higher Education Officials) and use this data to answer the study objective in a descriptive sense.

## **2.2 End Line Evaluation Method**

A mixed methodology strategy that combines qualitative and quantitative techniques was used for the end line evaluation. The analysis and triangulation of qualitative and quantitative techniques enabled us to arrive at conclusions about the DAC criteria. Qualitative techniques relied on the use of in-depth key informant

interviews, focus group discussions to enable us to answer questions related to attitudes towards the project, feelings, social norms, cultural beliefs that impacted the project, opinions among other non-quantifiable measures. On the other hand, quantitative techniques relied on literature review and survey questionnaires. The methodology is elaborated further as follows:

### 2.2.1 Quantitative Approach

Quantitative data was captured from TVET Graduate surveys, TVET and Higher Education Institutions Survey, Private Sector Survey, and review of M&E framework; baseline report, and mid-term report. Some of the quantitative data to be collected will include the following:

- ✓ # of trainers trained on CBT in road/energy
- ✓ # of assessor trained
- ✓ # of businesses identified using Labor market survey
- ✓ # of employers who participated in the training process (design stage to employment)
- ✓ # of trainees trained in road/energy sectors using the CBT approach
- ✓ # of trainees trained through ``Dual-mode Approach``
- ✓ # of business identified using Labor Market survey
- ✓ # of trainees assessed and certified based on VQF
- ✓ # of CBT packages for road/energy developed
- ✓ # of lectures trained
- ✓ # of workshops/consultative meetings on VQF
- ✓ # of scholarships given to underprivileged students
- ✓ Availability of accreditation manuals
- ✓ Availability of assessment and certification guidelines

### 2.2.2 Qualitative Approach

The qualitative approach was instrumental in assessing the extent to which the recommendations of mid-term evaluations been translated into action, and the extent to which the outputs led to the outcomes (objectives) and the overall impact. This was done engaging the following key informants:

- |                                       |   |
|---------------------------------------|---|
| ✓ TVET Managers                       | ✓ Ministry of Youths officials                |
| ✓ TVET trainers and assessors         | ✓ Energy Company Managers                     |
| ✓ TVET centre directors               | ✓ EU Donor representative                     |
| ✓ CARE project staff                  | ✓ Private-sector employers                    |
| ✓ Local employment authorities        | ✓ EU representative and other partners (TU/E) |
| ✓ Road Construction                   |   |
| ✓ Ministry of Education TVET Director |   |

Some of the information to be captured include:

- ✓ Quality of project implementation, coordination, and relevance (*changes, challenges, experiences, lessons, best practices, and recommendations*)
- ✓ The quality assurance mechanism adopted during design and implementation (*changes, challenges, experiences, lessons, best practices, and recommendations*)
- ✓ The efficiency in activity implementation with available project resources (*changes, challenges, experiences, lessons, best practices, and recommendations*)
- ✓ The effectiveness of BRIDGES Project interventions to target communities (*changes, challenges, experiences, lessons, best practices, and recommendations*)
- ✓ Sustainability mechanisms established under the project (*changes, challenges, experiences, lessons, best practices, and recommendations*)
- ✓ Other factors that enhanced or inhibited the achievement or non-achievement of project objectives
- ✓ Other challenges experienced and lessons learned.

## 2.3 Sample Size Determination

All the 477 trainees who were enrolled in the project were targeted the end term evaluation as follows:

### Sample Size Distribution Table

Region (Survey)	TVET Centre	Male	Female	Total
Somaliland	Havoyoko TVET center	120	39	159
Puntland	Galkacyo TVET centre	82	26	108
Mogadishu	Halye Barrise TVET centre	61	9	70
Galmudug	Galmudug	40	0	40
Jubaland	Kismayo Training Institute	73	27	100
<b>Sub Total</b>		<b>376</b>	<b>101</b>	<b>477</b>

A total of 414 surveys were conducted (404 TVET graduates, 10 University Graduates). Additionally, 33 key informant interviews were conducted (Annex V). The Focus Group discussions could not be conducted following COVID-19 WHO and Somalia government guidelines on social distancing.

## 2.4 Sampling Strategy

A list of TVET graduate and University trainee beneficiaries was used in each region. The study was a census, therefore, all trainees were tracked and surveyed. For KII, purposive sampling was employed. This was to ensure that only those respondents who have significant information concerning the project are interviewed. Due to COVID-19 challenges, phone and skype interviews were incorporated for cases and areas that had access restrictions. No FGDs were conducted due to social distancing WHO regulations, and also Somalia's government regulations. However, any TVET graduate group that is running an entrepreneurship business were interviewed using skype or conference call.

## 2.5 Data Collection Methods

The end line evaluations utilized both primary and secondary data. The following are some of the proposed data collection methods:

### i TVET Trainee Survey

TVET Trainee surveys was conducted using semi-structured questionnaires, with the majority of the questions being closed-ended. This was done from a list of TVET graduates under the programme for each region. The questionnaires were administered by the enumerators to TVET trainees under this project to gather both quantitative and qualitative data. Due to the challenges posed by COVID-19, some of the interviews for graduates in hotspots were conducted via phone interviews to avoid cases of exposing the enumerators to infection. However, in areas where physical face to face interviews are possible, the WHO guidelines will be followed to the later.

### ii TVET Graduate Tracer -Case Study

TVET graduate tracer case study was conducted using open ended questionnaires. The case studies targeted mainly graduates in successful enterprises post training period.

### iii Key Informant Interviews (KII)

The KIIs were guided by a standardized open-ended questionnaire. The majority of KII interviews were conducted in person and also via phone interviews since the majority of government ministry and department officials are working from home due to Covid-19 government regulations. Equally, phone and skype interview was the most preferred method of not exposing Key informants to the risk of COVID-19. A comprehensive list of KIIs required for this evaluation have been listed in the previous section. CARE Programme officer

in each region provided us with the necessary contact lists that enabled us to proceed with these interviews.

iv **Observation**

During field visits, observations were made and documented through pictures and illustrated stories to enhance the findings that will be documented through qualitative and quantitative means. This included visits to TVET centres, road constructions, and infrastructure development, and private businesses.

v **Secondary Data**

✓ A comprehensive list of documents reviewed is provided in Annex VI

## 2.7 Quality Assurance

Quality assurance measures will include the following:

- ✓ About 20% random callbacks to TVET graduates to authenticate their interviews, and content was conducted
- ✓ Verification and authentication of field Data using geo-tagging locator (examining the location indicators for each enumerator data sent)
- ✓ All high-level KII interviews were conducted by the lead consultant and the regional coordinators
- ✓ Only enumerators familiar with the project and who have participated in previous training and BRIDGES data collection were recruited. The advantage of using these enumerators was to leverage on their familiarity and understanding of the project as this was intended to minimize mistakes and time required to grasp the project content and tools.
- ✓ A two-day training was conducted through a virtual workshop forum due to the restriction of COVID-19. This ensured there is a clear understanding of the questionnaires, methodology, and research ethics, COVID-19 WHO guidelines and requirements, etc.

## 2.8 Data Analysis and Reporting

For the quantitative data, descriptive statistics including frequencies, percentages, and possible cross-correlations was analyzed. The survey questionnaire will be exported to SPSS version 24 for cleaning and in-depth analysis. On the other hand, qualitative data analysis entailed coding of transcripts from key informant interviews and the focus group discussions to establish and highlight the emerging themes around the activities, outputs, and impacts of and relationships within the project. The inferences from these analyses was used to complement quantitative figures and statistics. The OECD criteria (relevance, efficiency, effectiveness, impact, sustainability) was analyzed using content analysis.

## 2.9 Recruitment of Study Participants

Enumerators that were utilized during Mid-Term evaluation were recruited due to their familiar with the project and project regions, key informants, and the nature of the tools we are going to use to collect data. Familiarity with project and tools made it easy to deliver quality data. The enumerators were distributed as follows:

Region (Survey)		Male Enumerators	Female Enumerators	Total
Somaliland	Havoyoko TVET center	2	2	4
Puntland	Galkacyo TVET centre	2	2	4
Mogadishu	Halye Barrise TVET centre	2	2	4
Jubaland	Kismayo Training Institute	2	2	4
<b>Sub Total</b>		<b>8</b>	<b>8</b>	<b>16</b>

## 2.10 Training for Enumerators

All enumerators will undergo two days of compulsory training that will be conducted by the Lead Consultant, and one-day pilot testing. Due to COVID-19 travel restriction, training of enumerators will be conducted in person or either via skype and WhatsApp conference call, based on restriction of each region of the study. However, each region will have an associate local consultant supervising the training and data collection.

## 2.11 Ethical Considerations

Training of enumerators and team consultants included ethical considerations such as COVID-19 regulations, human rights obligations in research, ethics in data collection, child protection, GBV issues, and issues to do with confidentiality and respondent safety and security. Additionally, CARE international guidelines on integrity and data collection ethics were discussed during the training.

## 2.12 Piloting / Pre-Testing

After the training, a pilot was conducted to test the data collector's deployment of the tool, and whether the tool was able to elicit desired data. Final adjustments including language simplification was be done at this stage.

## 2.13 Potential Challenges /Risks and Mitigation Plan

The following are some of the challenges encountered carrying out this assessment included the following:

- i. **Security challenge:** In as much as some parts of Somalia are relatively safe, other regions, particularly the evaluation regions have security challenges that should and could not be ignored. The Galmudug region, in particular, could not allow for enumerators from the North to work in the South region. To avoid security incidences, the evaluation enumerators were recruited from each of the regions
- ii. **Non-Responsive Trainees:** Since our team was relying on the trainee's database, some of the contacts within the list were not available, some phone numbers by trainees had been replaced, and in other cases, trainees failed to pick the interview calls. Attempts were made through the TVET center managers and in collaboration with CARE regional officers to ensure many functional contact list was updated and availed. This approach reduced the number of missed interviews.



**Solar Energy Trainees Installing Panels – Somaliland**

*(The youth above are part of the “Horn Technical and Technology”- A state-up Company by 6 BRIDGES Trainees from Havoyoko TVET. The installations were being done in Hargeisa Town)*

## 4.0 RESULTS AND FINDINGS

### 4.1 Introduction

This chapter presents the major findings of the study. The findings are presented in the following order. The demographic characteristics are presented first highlighting respondents' age, gender, and level of education. This is followed by finding on each of the project outcome areas.

### 4.2 Democratic Characteristics

#### 4.2.1 Respondents Gender

The gender composition of the respondents of the study was 70% (288) male and 30% (126) female as summarized in Table 4.1. For regional gender distribution, Puntland respondents were composed of (68%) male, and (32%) female; Somaliland was composed of (69%) male respondent; Jubaland respondents were (52%) male and (48%) female; Mogadishu respondents were composed of (91%) male and (9%) female. Mogadishu has the lowest representation of female trainees both for TVETs and University (Somalia National University) were not available for the evaluation interviews. Mostly, the phone numbers from the database list (both with CARE and that provided by TVETs) were not valid, other phone contacts went unanswered, while others were switched off during the time of the evaluation. Attempts to seeks alternative contacts registered with the TVETs did not yield much fruit. Overall, the (30%) female representation was good enough for the study.

**Table 4.1: Respondents Gender**

Regions	Male	Female	Total
Puntland	65 (68%)	31 (32%)	96
Mogadishu	82 (91%)	8 (9%)	100
Somaliland	88 (69%)	39 (31%)	127
Jubaland	53 (52%)	48 (48%)	101
<b>Total</b>	<b>288 (70%)</b>	<b>126 (30%)</b>	<b>414</b>

#### 4.2.2 Respondents Age

Based on the evaluation findings, the majority (91%) of respondents were between the age of 18 and 27 years. When examined regionally, 45% (43) were aged 18-22 years, 49% (47) were aged 23-27 years; 5% (5) were aged 28-32 years and 1% (1) were above 33 years. For Mogadishu, 40% (36) were aged 18-22 years; 54% (49) were aged 23 – 27 years, while 6% (5) were aged 28-32 years. For Somaliland, 37% (47) were aged 18-22 years, 54% (68) were aged 23 -27 years, 9% (9) were aged 28-32 years, while 3% (3) were aged 33 years and above. Finally, Jubaland, 53% (54) were aged 18-22 years, 35% (35) were aged 23 -27 years, 9% (9) were aged 28-32 years while 3% (3) were aged 33 years and above as summarized in Table 4.2

**Table 4.2: Respondents Age**

Region	18-22 Years	23-27 Years	28 -32 Years	33 and above
Puntland	45% (43)	49% (47)	5% (5)	1% (1)
Mogadishu	40% (36)	54% (49)	6% (5)	0% (0)
Somaliland	37% (47)	54% (68)	9% (12)	0% (0)
Jubaland	53% (54)	35% (35)	9% (9)	3% (3)
<b>Total</b>	<b>43% (180)</b>	<b>48% (199)</b>	<b>7% (31)</b>	<b>1% (4)</b>

#### 4.2.3 Level of Education

When asked to indicate their highest level of education before joining the BRIDGES project, on average, overall majority (59%) indicated they had secondary school level education, (16%) had primary school education, (14%) indicated they had a college diploma, and (10%) had university-level education as highlighted in Table 4.3

**Table 4.3: Level of Education**

Region	Primary Level	Secondary Level	College Diploma	Other Specify
Puntland	16% (15)	74% (71)	2% (2)	8% (8)
Mogadishu	0% (0)	51% (46)	38% (34)	11% (10)
Somaliland	9% (12)	64% (81)	15% (19)	12% (15)
Jubaland	41% (41)	47% (47)	5% (5)	8% (*)
<b>Total</b>	<b>16% (68)</b>	<b>59% (245)</b>	<b>14% (60)</b>	<b>10% (41)</b>

#### 4.2.4 Respondents Training Institution

This evaluation sought to examine all trainees who benefited from the BRIDGES project spread in four regions. Out of the 414 trainees who took part in the study, 96 (68% male, 32% female) were from Galkacyo TVET Centre, 90 (82% male, 18% female) were from Halye Barrise TVET Centre, 117 (68% male., 32% female) were from Havoyoko TVET Centre, 101 (52% male, 48% female) were from Kismayo Training institute. For university trainees, 10 (9 males, 1 female) from Gollis University took part in the study as summarized in Table 4.4. No trainee from Somalia National University was interviewed as they could not be reached for interview based on database contacts provided by CARE and SNU. This was partly due to the closure of the university due to COVID-19, which had trainees travel back home. Some of the trainees had changed their phone contacts, others did not pick their calls, while some had their contact phone lines switched off making it difficult to make contact during the evaluation period.

**Table 4.4: Respondents Training Institution**

Training Institution	Male	Female	Total
Galkacyo TVET Centre	68% (65)	32% (31)	96
Gollis University	90% (9)	10% (1)	10
Halye Barrise TVET centre	91% (82)	9% (8)	90
Havoyoko TVET Center	68% (79)	32% (38)	117
Kismayo Training Institute	52% (53)	48% (48)	101
Total	70% (288)	30% (126)	414

### 4.3 Increased Equitable Access to Private Sector-Led BRIDGES Services

**Result 1: Increased equitable access to private sector-led and competency-based skills development opportunities linked to road infrastructure and energy services for youth**

#### Number of Trades Identified using Labor Market Survey

A labor market assessment was conducted in February 2017, CARE in collaboration with local, TVETs (Galkacyo Vocational Training Centre, in Galkacyo; Havoyoko vocational training center in Somaliland; Hayle Barise Institution in Mogadishu, and Kismayo Technical Institute in Jubaland) and the Ministry of Education (Mogadishu, Puntland, Somaliland, and Jubaland) developed 27 curriculum-based courses to address the market skills gap in the roads and renewable energy sectors as follows:

1. Certificate in Road Construction Technology Levels I, II and III;
2. Certificate in Asphalt Paving Technology Levels II and III;
3. Certificate in Heavy Equipment Operations Levels I, II and III;
4. Certificate in Heavy Equipment Technology Levels I, II and III;
5. Certificate in Surveying Technology Level II;
6. Diploma in Road Construction Technology Levels IV and V;
7. Certificate in Solar PV System Technology Levels I, II and III
8. Certificate in Solar PV System Design Levels II and III
9. Certificate in Solar PV System Services Levels II and III

10. Certificate in Solar PV System Sales and Marketing Levels II and III
11. Certificate in Solar PV System Installation Levels II and III
12. Diploma in Renewable Energy Levels IV and V

All the four TVETs institutions that participated in the project had adopted and implemented Certificate in Road Construction Technology Levels I, II and III; Certificate in Asphalt Paving Technology Levels II and III; Certificate in Surveying Technology Level II and Diploma in Road Construction Technology Levels IV and V. The training of the certificate and diploma courses had been completed by the time of this evaluation.

For the University degree programme, the labor market needs assessment was conducted by Eindhoven University of Technology (TU/e) in February 2018. The findings revealed a significant gap in Electrical and Renewable Energy degree courses that were being taught at Gollis University and Somali National University (SNU)<sup>1</sup>. On the curriculum front, the gaps included lack of courses on grid integration of renewable energy sources (micro-grid, hybrid, centralized large scale, etc.), power quality, safety and reliability, and energy economics. Other gaps included inadequate skilled lecturers and instructors in electrical engineering and renewable energy, and poor or basic infrastructure and labs for sustaining the programme. As a result, the following five-degree courses were introduced into electrical engineering and renewable energy:

1. Decentralized Power Generation
2. Low-Voltage Installations
3. Power Quality and Mitigation
4. Renewable Technology
5. Energy Economics

### **The Relevance and Effectiveness of the Courses**

As had been established by the labor market survey, and also by the mid-term evaluation, Somalia had a significant skills deficit in roads and energy sectors. The courses selected both for the roads and renewable energy sector were very relevant to the labor market and had been approved by the Ministry of Education and Higher Learning (MoEHE), the private sector, The different skills training levels (certificate, diploma, and degree) was done to ensure a significant increase in the availability of the stated skills to the labor market, and also ensured that inclusion spectrum covered a wide scope of skills training capability for youth at different education levels. Secondly, Somalia relied and still relies on external expertise on electrical design & installation and renewable energy services and the road construction sector. Increasing access to the skills training in these sectors was an effective way to help build local capacities and skills that will be essential to the labor market both in the short and long term.

### **Access to Competency-Based Skills Training**

The BRIDGES project targeted 500 unemployed and unskilled youth (30% women) were for demand-driven and competency-based skills training in road construction and renewable energy (certificate, diploma, and degree courses). The selection criteria were based on possession of secondary school certificate (for Diploma enrolment and intermediate or primary school certificate for certificate level trainees. All trainees who applied for the skills training were subjected to an entry-level exam (Mathematics, English, and Physics). Applicants had to pass the entry-level exam to be enrolled. A total of 477 (112 female) trainees were enrolled in Somalia and Somaliland TVETs, out of which, 379 (275 males, 104 females) finished the programme, while 98 (86 males, 12 females) dropped out. This constituted (80%) completion rate. The summary enrollment, completion, dropout by course, and gender is provided as follows:

**Table 4.5: Trainees Enrolment per Region**

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<sup>1</sup> Other Universities that Participated in the Needs Assessment include University of Hargeisa, and Puntland University. However, these two universities were not final beneficiaries of the project, due to regional balancing, and negotiations with that insisted participation of a public University and private university for purposes of fair capacity building of public institutions

Region	Male	Female	Total	% Female
Somaliland	119	38	157	24%
Puntland	82	26	108	24%
Galmudug	40	0	40	0%
Mogadishu	61	9	70	13%
Jubaland	63	39	102	38%
<b>Total</b>	<b>365</b>	<b>112</b>	<b>477</b>	<b>23%</b>

### Certificate Level Skills Training

From the initial enrolment of 477 as indicated in Table 4.5, 306 trainees were enrolled in certificate courses. At the end of the program, 264 (197 male, 67 female) had already completed the certificate of roads and renewable energy and graduated. For those who completed, 109 (85 male, 24 female) of the trainees completed a certificate course in road construction training while 155 (112 male, 43 female) completed diploma course in renewable energy summarized in Table 4.6 as follows:

**Table 4.6: Certificate Enrolment per Region**

Region	Roads				Renewable Energy				Overall Total		
	Male	Female	Total	% F	Male	Female	Total	% F	Male	Female	Total
Somaliland	20	13	33	39%	40	9	49	18%	60	22	82
Puntland	23	8	31	26%	26	6	32	19%	49	14	63
Mogadishu	23	2	25	8%	31	3	34	9%	54	5	59
Jubaland	19	1	20	5%	15	25	40	63%	34	26	60
<b>Total</b>	<b>85</b>	<b>24</b>	<b>109</b>	<b>22%</b>	<b>112</b>	<b>43</b>	<b>155</b>	<b>28%</b>	<b>197</b>	<b>67</b>	<b>264</b>

For the certificate level, the findings show that 42 certificate trainees (37 male, 5 female) dropped out due to economic hardship. Migration to other regions, others joined institutions of higher learning, while some of the female trainees got married and could not handle the schedule of marriage and TVET skills training.

### Diploma Level of Skills Training

The BRIDGES project targeted to enroll 150 trainees into diploma level skills training. At the beginning of the project, the enrolment was oversubscribed by 114% as 171 (127 male, 44 female) trainees were enrolled. Out of the 171 enrolled, 70 (50 male, 20 female) of the trainees were enrolled in construction of roads while 101 (77 male, 24 female) are studying renewable energy. However, 56 (46 male, 7 female) trainees dropped out of the diploma skills training programme leaving a total of 115 (78 male, 37 female) distributed in each region as summarized in Table 4.7. The main reasons attributed to the dropouts was the relocation to other regions which made it difficult for the trainees to continue with the programme, others left the programme for higher institutions of learning inside and outside Somalia, while few cases dropouts did not detail reasons for dropping out despite concerted efforts to trace on the same.

**Table 4.7: Diploma Enrolment per Region**

Region	Roads				Renewable Energy				Overall Total		
	Male	Female	Total	% of female	Male	Female	Total	% of female	Male	Female	Total
Somaliland	20	13	33	39%	40	9	49	18%	60	22	82
Puntland	23	8	31	26%	26	6	32	19%	49	14	63
Mogadishu	23	2	25	8%	31	3	34	9%	54	5	59
Jubaland	19	1	20	5%	15	25	40	63%	34	26	60
<b>Total</b>	<b>85</b>	<b>24</b>	<b>109</b>	<b>22%</b>	<b>112</b>	<b>43</b>	<b>155</b>	<b>28%</b>	<b>197</b>	<b>67</b>	<b>264</b>

### Adequacy, Effectiveness, and Efficiency of Certificate and Diploma Courses

This evaluation sought to examine whether the training provided for certificate and diploma courses within the TVET centres were adequate and whether the training was delivered efficiently and effectively. To do this, trainees, TVET Centre managers, Trainers, and assessors were asked for their views on the same. The following are some of these views:

*“...Before the project began, Somalia/Somaliland had a big gap in number of available skilled technicians and engineers both in the road construction sector and solar /renewable energy sector. We used to get technicians from neighboring countries like Kenya to do even simple solar installations. However, the training of TVET graduates has provided much needed skills to the job market. For example, the road constructions students can become future engineers as they continue to grow in their career. Currently, there are renewable energy graduates who have already formed their own company and offering solar technical installation and solutions all over Kismayo. Others have been employed. they are earning a living...supporting their families. The skills training has forever transformed their lives...”*

**TVET Trainer – Kismayo Technical Institute, Jubaland**

*“...The project had different components that made the certificate and Diploma skills training very effective. First, there was institutional support in terms of equipment, and tuition payment for the trainees. Secondly, the project ensured the instructors are well-trained, by also providing them with training manuals, and helping them develop proper scheme of work, structure lesson plans and how to use the laboratory equipment. All this skills were in turn transferred to the trainees... I can confidently say at Havoyoko, the skills training was very effective. This can be measured in the number of trainees who can be able to offer their services at the labor marketplace. We haven't done a tracer to determine the market absorption of their skills, but we are aware they are doing well... on for efficiency, there are few things that could have been done differently. We had delays in the actual training of trainers, in the provision of equipment, and also in linking trainees to private sector companies for internship and practical lessons... in as much as this did not affect the skills training if wasn't the best way to do it as this delays caused unnecessary distortions in training plans, for example, not every trainee was linked to private sector firms..*

**TVET Centre Manager- Havoyoko: Somaliland**

### **Demonstrated Impact as A Result of the Skills Training**

We documented a few case studies to provide a clear perspective on how important the BRIDGES project had transformed or was transforming training life's and their families. Some of these include the following:

#### **Case Study I**

My name is Fartun Abdullahi Osman. I am a female graduate from a road construction Diploma. Before the training, I used to be at home doing nothing that could earn me skills or a job. I was just supporting mother on house chores. We are a family of five, and I am a first borne. We are relatively poor. There is nothing I used to do at home other than helping with house chores. I did not have any hope for skilled job employment because I had not been trained for any specialized skill that was required in the job market. I was hoping to get any casual labor work that would enable me to support my family. However, when I was successful in enrolled for CARE project Road construction skills training at Kismayo Technical Institute, I knew my life was going to change forever. After training, I knew I was going to get a good job that would enable me to earn a good income to support my family. However, after completing the programme, I and other colleagues decided to establish our own company called Kismayo Youth Construction Company. Our company was lucky as we were recruited to join a road construction company that is implementing a road construction project in Kismayo funded by World Bank. So, thanks to CARE International for making who I am today through training on road construction.

## Case Study 2

My name is Abdullahi Abshir Ali, I am 26 years old. In the past I had no skill or information about solar power installation or electricity, I used to go to a local secondary school at Galkacyo. In the summer of 2018, I had the opportunity to join this Vocational Center after I heard the news from a friend. I was a jobless too, I used to stay at home and just study. I live in Ayax IDP camp near Galkacyo with my family. After getting this scholarship opportunity I took it seriously and studied very hard to excel. I completed the course and graduate with a certificate in solar power and electricity. I would like to take this moment to appreciate and thanks Galkacyo Vocation Center and CARE for their generous scholarship. I would like also to expand my knowledge on solar installation if I get another opportunity...currently. I'm still teaching a primary school at the IDP camp. I teach mathematic and English to earn my living and help families. On the other side, I'm now also a solar power and electricity technician. Currently I am offering my services for free to usually my neighbours and other members of the IDP camp, particularly on solar installation and electrical work. I have also installed solar power panels at my family house. I enjoy doing solar installation and maintenance work. I am hoping to continue expanding my skills and to become a solar system expert and am grateful to CARE for changing my life forever.

### TVET Trainees Perspectives on Course Challenges

Despite the significant success rate of both the certificate and diploma courses, there were some challenges that trainees felt were not mitigated in time. These challenges include:

1. The first trainee cohort group did not significantly benefit from the lab equipment, books, and practical lessons due to delays in acquiring the required equipment for the TVETs, and challenges with onboarding of private sector companies. This was however rectified for the second trainee cohort. The same problem occurred in the universities with the 1st batch of students since it took so much time to source and deliver the lab equipment to them, but the lecturers improvised by means of providing practical exposure to the use of basic equipment by their students in private sector companies, sometimes these are small installation companies they themselves own and run.
2. The majority of trainees preferred the training materials to have been translated into the Somali language, as most were not very articulate in the use of the English language, with limited their scope of engagement with some of their tutors who were non-Somali. As such, some had to rely on fellow trainees with English acumen, while others had to take extra mentorship with tutors who could speak the Somali language.

### Degree Level Skills Training

The BRIDGES project also sought to provide degree-level skills training in the renewable energy sector. Fifty (50) students were targeted for the programme. However, a total of 64 students were enrolled (39 at Somalia National University and 25 students at Gollis University). The project supported a maximum of 50 students (25 from SNU and 25 from Gollis) by paying for fee and training requirements (which was limited to 5 new courses developed under the programme)<sup>1</sup>. SNU is a public institution and receives government funds to cover the training and tuition costs of students. Therefore, the 14 students who did not benefit from the tuition fees paid by the project were covered by the institution, which enabled them to continue learning. On the other hand, Gollis University (being a private institution) noted that the funds provided by the project could only cover for 15 students and not 25. This was based on training cost analysis at the institutional level. The remaining 10 students were supported by the institutional funds.

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<sup>1</sup> The five new Courses are: (1). Decentralized Power Generation (2). Low-Voltage Installations (3). Power Quality and Mitigation (4). Renewable Technology (5). Energy Economics



**Solar Energy Trainees Installing Electricity Lines and Connections**

*(Graduate trainees from Galkayo TVET BRIDGES Project working on electricity connection lines in Galmudug region)*

## Effectiveness and Efficiency of Degree Level Skills Training

The Electrical Engineering degree programme in renewable energy experienced massive delays that effected effective programme rollout, lecturers training, student onboarding, EE laboratory equipment setup, and capacity building on university staff on the operation of the labs. Some of the highlighted challenges that affected the effectiveness and efficiency in rollout included the following:

**Project Design:** - The project was initially designed onboard Puntland University and Gollis University, which are private universities. The approach did not sit well with the government authorities who required inclusion of public sector university into the programme. As such, approval of the Electrical Engineering Degree programme was delayed pending the inclusion of a public university into the project design. To affect the amendments, Puntland University was dropped for Somalia National University. The Ministry of Education at the Federal level granted course approval, however, significant delay had the implementation plan. Other challenges that were associated with changes in the initial design included the following:

- 1) It would have been possible for the TU/e to access Puntland due to relative security, in contrast with SNU in Mogadishu. Security clearance for technical teams from TU/e (by TU/e Administration) was impossible compared to Puntland. There is an official negative travel advice in force for that area, instituted by the Dutch Ministry of Foreign Affairs. This also means that no travel insurance cover can be obtained by Dutch travelers to that area. Hence the TU/e cannot risk its employees to travel there. As a result, there were fewer quality checks, fewer physical supervision, and technical support to the project as was anticipated in the initial design. In as much as TU/e resorted mentoring the local university technical teams via emails and skype, the approach was neither effective nor efficient. Mostly, TU/e technical team noted that their emails were not responded to in time making it difficult to follow up on critical aspects of project implementation in time. Since it was impossible to get a firsthand view of the local conditions, uncertainties remained for a very long time about the basic conditions of the prospective lab building (e.g. the nature of the existing electricity connection; distance to the main power line) and the concrete possibilities of positioning the planned solar installation in relation to the lab building. These issues could only be resolved, and installation plans accordingly adjusted (at significantly higher installation costs than planned originally), towards the end of the project.
- 2) Collaboration with Puntland State had already commenced (with initial feasibility already conducted) before changes were made. Appraising the Federal State at Mogadishu for onboarding of the project was slow. Secondly, SNU was introduced into the project without adequate and comprehensive feasibility on its capabilities, and capacity. Establishing and building a mutual working relationship with MoEHE officials took longer. As noted earlier, the national level steering committee was not established due to differences between Mogadishu and other regional governments. To mitigate this challenge, regional steering committees were adopted after midterm review. Initial disagreements between Federal and Regional MoE officials and stakeholders delayed scheduled role out, student recruitment advertisement, curriculum development, and approvals.

**Implementation University Component:** Local universities were not adequately involved in the initial phase of the project design, which resulted in different opinions on how to implement local lecturers training component. First, the choice of training venue was problematic for local universities: The two universities (SNU and Gollis) preferred capacity training of lecturers to be conducted locally, while project design had made provision for the same to be done at TU/e in the Netherlands. Discussions between TU/e and Universities resulted in changes to the training venue from TU/e (which was perceived to be costly and far off the project region, and visa challenges for Somali's), to Nairobi (Kenya), and Mekelle, northern Ethiopia. It was the only suitable venue in the region where all participants could get a visa without problems and where good enough technical labs were available and we were hosted by MIT for free. It could not have

been done at Gollis or SNU, because they did not have any functional labs at that time. However, discussions with SNU and Gollis teams noted dissatisfaction with Nairobi and Addis Ababa regions as this inhibited more adequate local engagement. However, the dissatisfaction is not based on a realistic view of what was required for this kind of specialized training (Ethiopia), and Hargeisa (Somaliland). Secondly, there was lack of clarity on scholarship fund: The local universities were of the view that the scholarship was to cover the entire course for the selected beneficiaries. However, TU/e grant was only covering the five (5) new units for the Electrical Engineering course. TU/e had been allocated 27,000 euros per university for the scholarships in their share of the project budget by CARE (i.e., 25 scholarships per university). That amount could not be re-negotiated at a later stage, when Gollis univ suddenly asked for more money when they discovered it could not fully cover the costs for 25 students. It took time before Gollis understood this and accept it. The TU/e had not been involved in the original budgeting of the scholarships in the budget. The universities did not have a clear understanding of this budgeting constraint. Review of documents revealed significant differences on the issue that lasted late into last quota of 2019 before the issue was clarified and cleared. Other challenges on the implementation of university component included the following:

- 1) Security challenges around Mogadishu made it impossible for TU/e technical team to physically visit SNU as was scheduled in the implementation plan. As a result, project supervision, monitoring became very complex from the logistical point of view. Correspondences from TU/e to the local universities were not responded to in time, and in other instances, not responded to all. Despite these challenges, the project teams managed to deliver all the capacity training and finalized of course structure and the curriculum which was approved by MoE, a lab setup, and commencement of course training for the students, but with significant cost overruns on hours worked, which could be only partly covered out of the TU/e share of the project budget.
- 2) Institutional Capacities of the universities: - SNU was reported to have significant institutional capacity and formalised and stable structures compared to Gollis. Gollis required significant academic institution building (particularly leadership structure, Dean, head of departments streamlined) alongside technical support provided by TU/e. For instance, the structure of the dean of the academic programmes, head of programme, and head of the institution was not clearly articulated making it difficult for effective communications. Project responsibilities were not formalized, and also shifted during the project period in unexpected ways, without timely communication about the same to the TU/e project coordinator. There was no responsible Dean appointed for the new programme during the project period. There was a local project coordinator – a member of the lecturer team – but he was not continuously available for communication and he also unexpectedly left the institution for some time to set up his own business on several occasions without communicating this to the TU/e. He also did not have own mandate to approve most decisions. Approvals had to go through the institutional director before anything could be done, which hindered the effectiveness of collaboration and course training, and other necessary approvals, and caused cost overruns and frustration for TU/e. These challenges were later sorted out to some extent with the return of the former Gollis project coordinator to the institution.
- 3) Leadership Stability: - As stated above, Head of the lecturer team in Gollis kept leaving and re-joining the institution on three occasions in the middle of project implementation without proper communication, which caused a lot of confusion on whom the team would legitimately deal with. Secondly, the Managing Director at the inception of the project was taken ill and had to step down leaving a vacuum on project leadership that took longer to fill, which affected project communication and coordination. Additionally, lecturer turnover at Gollis (two trained lecturers left the institution) arose due to challenges with salary payments. Turnover of trained lecturers could be problematic to the sustainability of the new courses. To mitigate on this challenge, Gollis had made provision for the lecturers to seek

supplementary employment opportunities elsewhere, while at the same time, maintain their instruction schedule with the university.

**Procurement of Lab Equipment:** - The procurement process of equipment for the EE Labs had twofold challenges, which arguably were the most taxing of all for the TU/e team in the entire project. First, CARE required TU/e to strictly adhere to EU procurement guidelines, to which, TU/e felt CARE was too overbearing on the issue as TU/e internal processes are always compliant with EU guidelines, while the TU/e team also experienced a lack of clarity about the precise CARE procurement requirements. On the other hand, CARE felt they were just doing their job by enforcing compliance. As a result of the back and forth between CARE and TU/e on the issue, the process lasted for nearly six months before they could agree on the process nitty-gritty requirement. The delays were unnecessary as they significantly affected project implementation activity timelines. Lack of clear, timely, and effective communication precipitated the delays. Secondly, the actual procurement of Lab equipment from suppliers was an extremely protracted process. Laboratory equipment was sourced from different suppliers. Light equipment which included voltage testers, power clamps, power quality analyzers (KWIX), test leads, oscilloscopes (Welectron) were sent to TU/e first and then sent to Valencia where they were added to the solar panels and batteries sourced from Vico Export in that city. In Valencia, the goods were loaded into two containers for transport by sea to Mogadishu and Berbera (Somaliland's harbor town) respectively (this was a cost-effective option rather than having different equipment sent separately). There was a third separate big shipment to Mogadishu of student trainers sourced from Scientech/NVIS in India. There was two weeks due diligence procurement process for onboarding the containers in Valencia. Regarding the Indian equipment, Scientech took about 8 weeks to complete the production of the equipment after receiving the order and an advance, as they only manufacture this equipment on order. However, the advance took several weeks to reach Scientech after the TU/e placed the order, as the TU/e financial department was initially unwilling to pay part of the cost to Scientech upfront. This led to a serious cash 22 situation (in the middle of the summer holiday season in the Netherlands) which could only be broken after the matter was escalated to the central TU/e Board. The sea journeys of the containers themselves were also longer than anticipated: the Valencia containers needed to be reloaded onto a smaller container vessel - accompanied by a separate security guard vessel - in Oman for completion of the final leg of the journey to Somalia and Somaliland, as no direct container shipping route exists between any European harbor and the Somalia & Somaliland harbors. The container that was shipped by Scientech from Mumbai to Mogadishu received the same reloading treatment in the UAE. Thus, the processes that started in April 2019 stretched to September 2019 when all the equipment was finally delivered. This protracted process was not anticipated nor envisaged in the project implementation plan. The EE labs were finally installed in Gollis University (in December 2019) and SNU (May 2020, still in finalization stage).

### **Achievement and Impact of EE Lab Effectiveness**

Both SNU and Gollis have the EE Labs completely installed and functioning. The following are some of the impact noted with the completion of the Labs:

1. Enhanced Practical Lessons: - Before the installation of EE Labs, Gollis university had very basic renewable energy lab practice equipment while SNU had none at all since the university had only reopened a few years previous after having been closed for several decades, during which time any available equipment had disappeared. This made it difficult for the trainees to learn and gain practical skills relevant to the labor market. The new labs under the BRIDGES project have made it possible for the trainees and lecturers to gain cutting edge modern tools and instruments, as well as solar energy generation and storage equipment, and can practice different installation designs and simulations.
2. The EE labs have increased the universities' research capability in the renewable energy sector due to the high-quality start of the art equipment and technology.
3. Functional EE Labs have provided enough capacity to enroll more students for degree programmes in renewable energy. The current batch is set to graduate in 2022.

## Challenge of EE Lab Operations

The following are the reported challenges with the EE Labs currently under operations

1. According to TU/, the programming of the Power Quality Meter and training on how to operate it had been conducted, with follow up skype training meetings. Further technical support trainings by TU/e has not yet been honored by the universities' technical teams. However, according to the universities technical staff, this has not been done, as available technicians and lecturers do not know how to do it (both for Gollis and SNU). There is need for CARE to follow up on this matter and establish the level of support.
2. EE Lab Safety and Operations Training have not been conducted. This is posing a big challenge for lecturers and students to fully utilize all components and equipment without a clear comprehension of safety and protection measures. Currently, email correspondences and LAN manuals are being used in the interim basis to appraise the Faculty or tools and power security and safety usage. Discussions with TU/e and CARE Project Coordinator revealed that plans are still underway to ensure TU/e till finalizes EE Lab Safety and Operations Training virtually as soon as the university teams are ready.
3. By the time the final evaluation was being conducted, project handover to MoE, GIZ and TVETs was not yet done, however, the process had been initiated as list of hand over equipment, curriculums, trainers had been finalized, However, due to COVID-19 disruptions the process was halted. The project coordinator was in touch with the MoE and local government officials, and GIZ to establish suitable mechanisms under which the handover processes could be finalized.
4. By the time of the evaluation, Electrical Engineering Books and EE Lab practical guidebooks are not available for each student. The manuals supplied with the machines are for technical installation safety and maintenance, and not for course learning and practical guides. However, during the review of this final evaluation report, TU/e indicated they had now sent a good set of hard copy textbooks for the lab of SNU for common use by students and staff. The books were delivered in August 2020 via by DHL. But the project could not provide hard copies of textbooks for every student individually as this completely beyond the financial means of the project. Other materials have been made available vial pdf electronic formats.
5. The training of Lecturers focused mainly on the 5 new course areas, whereas the Course programme has more than 60-course units. The lack of capacity on the other Electrical Engineering units could diminish the quality of the programme. Discussions with Gollis and SNU project coordinators revealed a need to have review of the other course units, and capacity building on the same to ensure the course is of high-quality standards.

## Number of Employers Participating in the Training Process

The project design anticipated collaboration and partnership with private sector companies for the provision of practical lessons, internships and apprenticeship for both TVET and University trainees. CARE and MoE entered into an MOU with three private sector companies (Somtel, Necsom, and Sompower) and further profiled 16 private sector companies<sup>1</sup>. In the first half of the project implementation, the three 3 companies that had signed MoU with CARE had refused to offer practical training, internships, or apprenticeships to the trainees without compensation. However, in the last half of the project, the disagreements on compensation were settled by having parents of the Trainees sign a commitment form that guaranteed compensation for any breakage of malfunctioning of tools under trainees' care. Additionally, TVETs benefiting from the BRIDGES project agreed to extend the capacity building and training of the private sector employees seconded to them by the companies as a win-win situation. In Mogadishu: Hayle Barise Technical Development Centre: 50 (19 road construction and 31 renewable energy) certificate trainees (3 Female, 47 Male) have completed their internships in companies listed in Table 4.8.

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<sup>1</sup> **Hargeisa** (Gollis energy, Gollis University, Kaafi, RDA, Municipal Council, and Solar Contractors). **Galkacyo**: (Modern Building and Construction company, Red Sea Construction Company, National Electric, Fadhisame Electric, Said Maxamed Cabdi, and C/qadir Xasan Cali). **Mogadishu** (BECO, Sky Blue, Banadir Construction, Al Buruuj and Bandir Regional Admiration) **Kismayo** (Juba Valley Construction, SolarGen, Municipality, Solar Contractors and Jubaland Chambers of commerce)

**Table 4.8: Trainees Allocated to Private Companies for Internship in Mogadishu**

Sector	Company Name	Number of Trainees
Road Construction	En-Ez Construction Company	10
Road Construction	Kulmiye Construction Company	9
Renewable Energy	Daynille Hospital	20
Renewable Energy	Daynille Administration	11
<b>TOTAL</b>		<b>50</b>

In Somaliland, HAVOYOCOCO TVET had 78 (22 Females, 56 males) certificate graduates received apprenticeship as highlighted in Table 4.9.

**Table 4.9: Trainees Certificate Apprenticeship in Somaliland**

Sector	Company Name	Male	Female	Total
Road Construction	Daryel Construction	12	0	12
Renewable Energy	Som Power Company	12	0	12
Renewable Energy	Telecom Electric Company	7	2	9
Renewable Energy	Golis Energy Company	3	3	6
Renewable Energy	Kaafi Energy Company	2	4	6
Road Construction	Road Development Authority	20	13	33
<b>TOTAL</b>		<b>56</b>	<b>22</b>	<b>78</b>

As for diploma holders in Somaliland, 31 (21 Male, 10 Female) were absorbed by the same companies in the region listed in Table 4.9. The roads construction diploma had 11 attached trainees (7 Male, 4 Female), while renewable energy had 20 attached trainees (14 Male, 6 Female). In Puntland, 39 (25 Male, 14 Female) certificate trainees of Galkayo VTC. For the Diploma level, 29 trainees (12 roads, 17 renewable energy) were attached to private companies indicated in Table 4.10 and 4.11.

**Table 4.10: Trainees - Certificate Apprenticeship in Galkacyo**

Sector	Company Name	Male	Female	Total
Renewable Energy	Somtel	2	2	4
Renewable Energy	National Electric	4	2	6
Renewable Energy	Fadhisame Electric	4	2	6
Road Construction	Kebarco	7	8	15
Road Construction	Kebarco	8	0	8
<b>Total</b>		<b>25</b>	<b>13</b>	<b>39</b>

**Table 4.11: Trainees -Diploma Apprenticeship in Galkacyo**

Sector	Company Name	Number of Trainees
Road Construction	Kebarco Construction Company	12
Renewable Energy	Sunway Som Power	5
Renewable Energy	Al haramayn and Eng Hassan	3
Renewable Energy	Somtel	5
Renewable Energy	National and Eng Awoowe	4
<b>TOTAL</b>		<b>29</b>

In Kismayu; 23 (17M, 6F) renewable energy trainees completed the apprenticeship at Wamo energy Service Company in Kismayo. However, the road construction trainees were yet to be placed for apprenticeship since there is no major road construction in the region. Secondly, Kismayo does not have a Roads Development Authority that would have been essential in the placement of the students. To compensate for the lack of practical lessons, the trainees were to be attached to a master trainer and use the roads in Kismayo to fill in potholes and other minor repairs.

### Challenges with Private Sector Apprenticeship Model

The role of the private sector was not well defined at the beginning of the project. Initially, companies that got on board had very high expectations including receiving free training, cash payments, while others expected to benefit from the capacity building by sector experts funded by the project. Lack of these direct benefits resulted in the majority of the private sector companies pulling out of the agreement, which resulted in delays in implementing dual approach practical training, and internships. The challenges are further elaborated as follows:

- 1) **Substantive Quality Practical Lessons:** - For the companies that came on board, challenges revolved around providing substantive practical lessons. Some of the companies were still apprehensive about providing full access and use of their machine and equipment to trainees due to cost implications on breakage, malfunctioning due to poor and improper usage.
- 2) Some of the regions like Kismayo lacked a reputable and established construction company to provide practical lessons. As such, graduates from the region lacked much needed on job skills training and had to rely mostly on practical's offered at the TVET center. There is need to establish MoU with the local municipalities to enable graduate trainees to practice on local municipal roads, under the supervision of roads sector consultant of experienced instructors.
- 3) **Lack of a well-structured Private Sector engagement strategy:** Stipulating interests, partner's obligations, expectations, should have been developed and shared before Memorandum of Understanding was signed by the private sector companies. After midterm review, 13 private sector companies were brought on board, however, companies' obligations, expectations, and interest were also not comprehensively documented. TVETs centers made informal agreements with the 13 companies to help train few of their employees in exchange for the companies offering internship and apprenticeship opportunities. Future projects should incorporate formal agreements that are cognizant of contextual realities, particularly, minimal compensation or benefits.

The study respondents were asked to indicate whether they believed the apprenticeship program was relevant and important. The majority (92%) indicated the internship they undertook was important. For those who indicated the programme was relevant, cited the following reasons: enough field time to do practical lessons, attached to skilled technicians within the private sector companies, experienced tutors, and relevant learning materials Apprenticeship field project complexity was sighted as one of the main reasons for those who indicated they did not find the apprenticeship relevant.

**Table 4.12: Relevance of Apprenticeship Programme (N=244)**

Region	Yes	No
Puntland	(49) 88%	(7) 13%
Mogadishu	(63) 89%	(8) 11%
Somaliland	(106) 96%	(8) 4%
Jubaland	(7) 100%	(0) 0%
<b>Total</b>	<b>(225) 92%</b>	<b>(19) 8%</b>

When we asked the trainees whether the apprenticeship training was efficiently done and whether they were provided with the best tutelage under the programme. The majority (91%) indicated they received good tutelage, while (9%) did not. The reasons provided by those who felt they didn't receive the best tutelage was mainly due to lack of access to company work tools, the limited time assigned to each project, and in other instances, the field projects were too complex than what the students had learned in class.

**Table 4.13: Efficiency of Apprenticeship Programme (N=244)**

Region	Yes	No
Puntland	(53) 95%	(3) 5%
Mogadishu	(58) 82%	(13) 18%
Somaliland	(103) 94%	(7) 6%
Jubaland	(7) 100%	(0) 0%
<b>Total</b>	<b>(221) 91%</b>	<b>(23) 9%</b>

**Impact Apprenticeship on Trainees**

Despite some of the challenges started in the previous section, the apprenticeship programme was very important and provided trainees with much-needed hands-on skills in the work environment. This is highlighted by the following feedback from the trainees:

*“...after I finished my course class training at Havoyoko TVET, I was attached to Gollis Energy for my internship and practical lessons. I am a lady and was afraid how the male technicians will treat me or if they will accept to train me. But thanks to Allah, they treated me well, and took me to every installation project they were working on for the entire period of three month. I really learnt a lot. I do not have a permanent job yet, but I get called by Gollis team from time to time to work on their solar installation projects and they pay me well. I am hoping they will employ me in their company soon. At home, I have repaired all the sockets and switches that were faulty...”*

**Diploma Female Trainee: Hargeisa -Somaliland**

*“...I did my internship with Som Power Company at their branch in Insha-Baran Village...the internship provided me with great opportunity to practice and to prove my skills and capabilities I gained at Havoyoko...during internship, Som Power enabled me to repair power extensions, street solar lamp connections and installations... Now I am a solar technician in my community. I get jobs to conduct solar installations and other repairs and earn income that I use to support my family...”*

**Diploma Male Trainee: Hargeisa -Somaliland**

On average, when respondents were asked whether the training and apprenticeship had benefited their lives, the majority (79%) indicated they had significantly benefited compared to (21%) who indicated that they had not benefited from the apprenticeship and skills training programme in a significant manner as summarized in Table 4.14. For those who indicated that the programme had impacted their lives, (43%) were able to earn income and provide for their family, (39%) were able to support their siblings through school, (5%) had improved health outcomes due to income they received from project skills, and (13%) noted an increase in knowledge and self-confidence as indicated in Table 4.15.

**Table 4.14: Apprenticeship Impact on Trainees (N=263)**

Region	Yes	No
Puntland	(20) 36%	(36) 64%
Mogadishu	(64) 90%	(7) 10%
Somaliland	(101) 92%	(9) 8%
Jubaland	(7) 100%	(0) 0%
<b>Total</b>	<b>(192) 79%</b>	<b>(52) 21%</b>

**Table 4.15: Nature of Impact (N=192)**

Region	Income provides food for my family	Able to support my brothers/sisters	Improved health due to good income	Knowledge self-confidence
Puntland	(2) 8%	(6) 25%	(0) 0%	(16) 67%
Mogadishu	(35) 49%	(16) 22%	(4) 6%	(17) 24%
Somaliland	(72) 44%	(79) 49%	(8) 5%	(1) 1%
Jubaland	(5) 71%	(2) 29%	(0) 0%	(0) 0%
<b>Total</b>	<b>(114) 43%</b>	<b>(103) 39%</b>	<b>(12) 5%</b>	<b>(34) 13%</b>



### **Road Construction Trainees – Undergoing Field Practical Work**

(Graduate trainees from Halye Barrise TVET Centre BRIDGES Project working on Construction project in Mogadishu)



### Road Construction Trainees – Undergoing Field Practical Work

(Graduate trainees from Halye Barrise TVET Centre BRIDGES Project working on practical lessons in Mogadishu)

### Number of Trainees Trained in Road/Energy Sectors Using CBT Approach

The Curriculum-Based Approach (CBT) was developed and implemented during the project period. All the 477 (23% female) trainees for roads and energy sectors. However, the compacted nature CBT approach (with the inclusion of communication skills, entrepreneurship education, business planning) made it very difficult for the trainers to cover the core courses, and also provide quality training on the competency courses for business and entrepreneurship. Study respondents were asked to indicate whether they understood and grasped the content they learned under the CBT approach. On average, (96%) of the trainees indicated they understood the training, while (4%) did not as summarized in Table 4.16. There were no significant reasons provided by those who did not understand the lessons, other than occasion absence when specific courses were being taught. The respondents who indicated they had grasped and understood the content under the CBT approach attributed this to the quality of their teachers, and adequate lessons provided under the programme.

**Table 4.16: Knowledge and Understanding of CBT Approach (N=170)**

Region	Yes	No
Puntland	(37) 93%	(3) 8%
Mogadishu	(18) 95%	(1) 5%
Somaliland	(16) 94%	(1) 6%
Jubaland	(92) 98%	(2) 2%
Total	(163) 96%	(7) 4%

Discussions with one of the graduate trainees from KTI on the quality of CBT approach revealed the teaching/ instruction and content was well administered:

“...I can honestly say that we had very good trainers at KTI. They were very knowledgeable and patient with me and my fellow trainees. We were given the course training structure that explained all the courses we were required to complete to graduate. I learned a lot and gained skills on solar installations, repairs, and renewable energy in general. The skills I gained under the programme has enabled me to get local jobs that enable me to earn income and support my mother and sisters...I am looking forward to expand on this training to get a degree in renewable energy in the future as this will enable me to become a lecturer in one of the local TVETs and universities...”

**Solar Energy Diploma Female Trainee: Kismayo -Jubaland**

Most learners who had been taught basic business communication skills, entrepreneurship planning, marketing, and basic accounting under the CBT approach demonstrated knowledge and awareness of these competencies. However, after completion of the training, the transition to employment was still a challenge. Majority 170 (79%) of respondents were not yet employed, while 35 (21%) were employed. Somaliland had the highest recorded employment rate (29%), followed by Jubaland (24%), Mogadishu (21%) and Puntland (8%) as indicated in Table 4.17.

**Table 4.17: Employment Status after CBT Approach Training (N=170)**

Region	Yes	No
Puntland	(3) 8%	(40) 93%
Mogadishu	(4) 21%	(19) 79%
Somaliland	(5) 29%	(17) 71%
Jubaland	(23) 24%	(94) 76%
<b>Total</b>	<b>(35) 21%</b>	<b>(170) 79%</b>

Out of the 35 trainees who were employed after undergoing CBT approach training, 14 were in the private sector, 20 were self-employed /entrepreneurs, and one (1) was employed in the public sector.

### Number of Trainees Trained Through Dual Mode Approach

In Mogadishu, Hayle Barise Technical Development Centre: 50 (19 road construction and 31 renewable energy) certificate trainees (3 Female, 47 Male) had been trained in dual-mode approach; In Somaliland, HAVOYOCOCO TVET had 78 (22 Females, 56 males) certificate graduates received apprenticeship, while 31 (21 Male, 10 Female) diploma trainees were also absorbed by companies listed in Table 4.9. The roads construction diploma had 11 attached trainees (7 Male, 4 Female), while renewable energy had 20 attached trainees (14 Male, 6 Female). In Puntland, 39 (25 Male, 14 Female) certificate trainees of Galkayo VTC. For the Diploma level, 29 trainees (12 roads, 17 renewable energy) were attached to private companies indicated in Table 4.10 and 4.11. In Kismayu; 23 (17M, 6F) renewable energy trainees completed the apprenticeship at Wamo energy Service Company in Kismayo. However, the road construction trainees were yet to be placed for apprenticeship since there is no major road construction in the region. Most of the companies that took part included: Mogadishu (En-Ez Construction Company, Kulmiye Construction Company, Daynille Hospital, Daynille Administration) in Somaliland (Daryel Construction, Som Power Company, Telecom Electric Company, Golis Energy Company, Kaafi Energy Company, Road Development Authority); Puntland (Somtel, National Electric, Fadhisame Electric, and Kebarco); Kismayo (Wamo energy Service Company). No major road construction companies exist in Kismayo, nor RDA which made it difficult to conduct dual approach training.

Trainees who took part in the dual training approach mode were asked whether the training they received was of good quality. On average, the majority (91%) indicated they had received quality training through the dual approach mode, while (9%) noted they did not receive quality training as summarized in Table 4.18. There were four main reasons behind the perception that the dual approach was quality: The training approach offered more practical lessons as compared to the CBT

approach. Secondly, the dual approach mirrored the internship approach hence trainees gained more from the lessons compared to the CBT approach, and finally, dual approach enabled trainees to interact with experienced teachers and tutors who were both knowledgeable and had adequate training tools. On the other hand, those who were not satisfied with the quality of the training noted the lack of adequate time to experiment with the tools at work as the main reason for discontent.

**Table 4.18: Quality of Dual Approach Training (N=244)**

Region	Yes	No
Puntland	(53) 95%	3 (5%)
Mogadishu	58 (82%)	13 (18%)
Somaliland	103 (94%)	7 (6%)
Jubaland	7 (100%)	0 (0%)
<b>Total</b>	<b>221 (91%)</b>	<b>23 (9%)</b>

“...I took my apprenticeship training at Roads Development Authority here in Hargeisa. The instructors allowed me and my classmates to have access to RDAs labs and equipment. We were allowed to practice with different tools including road surveying equipment, and also observed how road construction graders are operated. This enhanced my confidence, knowledge and skills a lot... I am currently not employed, but on two occasions, I have been involved in local road construction here in Hargeisa by a local company that has promised me employment once they resume operations after COVID-19 restrictions have ended...the employment will be very important to me and my family...”

**Diploma Male Trainee: Hargeisa -Somaliland**

The evaluation findings show that the majority of 172 (70%) of trainees who used the dual approach training still have not yet got employment in the labor market, compared to 72 (30%) who were employed as indicated in Table 4.19. Out of the 72 trainees who were employed after undergoing dual approach training, 33 were in the private sector, 29 were self-employed /entrepreneurs, and 10 were employed in the public sector.

**Table 4.19: Employment Status after Dual Approach Training (N=244)**

Region	Yes	No
Puntland	(3) 5%	(53) 95%
Mogadishu	(22) 31%	(49) 69%
Somaliland	(43) 39%	(67) 61%
Jubaland	(4) 57%	(3) 43%
<b>Total</b>	<b>(72) 30%</b>	<b>(172) 70%</b>

Comparatively, dual approach trainees have performed well in the labor market (30%) compared to (21%) for the CBT approach. The implication is that future programming should focus more on the dual approach as it provides most opportunities for employment compared to CBT. The benefits of training by dual-mode is further explained by Kismayo Technical Institute Centre Manager as follows:

“...The Dual approach would have been good for road construction trainees, but there is no construction company that is partnered with our institution in Kismayo... so our trainees in road construction did not received same practical opportunity from a private company or authority, but rather the institutional based lessons. However, for renewable energy trainees, practical lessons offered by WESCO electricity company...as a result, this collaboration, made the renewable energy course more effective than road construction trainees...”

**Centre Manager, Kismayo Technical Institute, Jubaland**

## Number of Trainees Assessed and Certified Based on VQF

The BRIDGES project intended to have a harmonised VQF for Jubaland, Somaliland, Puntland, Galmudug, and Mogadishu, and to have all trainees from all the regions evaluated using the harmonised VQF (Puntland and Somaliland have individual regional VQFs). VQF harmonization was also intended to enhance national consistency in the way vocational skills training, assessment and certification is conducted in Somalia. However, following discussions between CARE, EU and GIZ, the VQF component was recalled from BRIDGES project and transferred to GIZ for implementation, since GIZ had significant funding and ongoing work on the same in Somalia. The unintended implication of this changes was that trainees from all the four regions were not trained using a standardized /harmonized VQF as GIZ did not finalize this in time. Secondly, there was a significant inconvenience and loss of goodwill caused when the VQF component was recalled since CARE was at an advanced stage in recruiting VQF consultants in collaboration with MoE Somaliland. Finally, lack of standardized accreditation process might harm graduates seeking cross-regional employment. Somalia's regional context majorly restricts cross-border employment for purposes of protecting the development of local human capital and employment opportunities, a challenge a harmonized VQF was seeking to eliminate.

### Implication

Recalling and transferring the VQF component to GIZ had the following implications:

1. The trainees for all the four regions were not trained using a standardized /harmonized VQF as GIZ did not finalize this in time to harmonize across all the four regions (Puntland and Somaliland relied on already existing regional level VQF). Therefore, trainee certification for each region was based on each region's MoE verification guidelines.
2. Significant inconvenience and loss of goodwill were caused when the VQF component was recalled since CARE was at an advanced stage in recruiting VQF consultants in collaboration with MoE Somaliland.
3. Lack of standardized / harmonized accreditation process will make it difficult for graduates seeking cross-regional employment as each region relied on different accreditation processes. Somalia's regional context does restrict cross-border regional employment as a way of protecting the development of local human capital and employment opportunities. A harmonized accreditation process that is acceptable in all regions could have been essential step forward in reducing/eliminating the cross-border employment for TVET graduate trainees.

In the future, the realignment of significant components of a project should be done after baseline. This allows for enough time to restructure project outcome areas before implementation and mobilization of necessary resources required at each project implementation stage.

## 4.4 Strengthened Capacities for BRIDGES Project

**Result 2: Strengthened Capacities of Training Providers, Lecturers, and TVET Trainers to Deliver Market-Oriented Skills Training to Meet the Immediate and Emerging Labor Market Demands within Road Infrastructure and Energy Services**

### Capacity Building of Staff in the Roads Sector

The action targeted 15 regular and middle level staff working in the relevant ministries in charge of Roads. In total, 69 (56 male, 13 female) roads staff were trained on weighbridge management, laboratory and material testing, roads construction management and road survey. The action trained 27 (22 male, 5 female) road staff on the operationalization of the axle load control equipment, a weighbridge equipment supplied by GIZ. Of these 17 (15 male, 2 female) were from the Roads Development Authority (RDA) while 10 (7 male, 3 female) were from Puntland Highway Authority (PHA). Another training was conducted for Roads Development Authority (RDA) on laboratory,

material testing and analysis for 11 (10 male, 1 female) middle level staff. Further, 31 (24 male, 7 female) roads staff were trained on road construction project management. Of these 12 (8 male, 4 female) were from RDA, 4 (all male) were from Kismayo and 15 (12 male and 3 female) were from Puntland Highway Authority (PHA). A further training was conducted for 13 (12 male, 1 female) staff from RDA (9) and Kismayu (4) on road surveying works. Last but not least, 10 (10 male, 0 female) road officers from the Kismayo public works department, RDA, PHA and Mogadishu were supported through a one-week exchange program with the Ministry of Works and Transport in Uganda. This provided opportunity to interact with different departments, companies, and institutions dealing with roads in Uganda. The Engineering Management Institute (EMI) trained the officers on Road Sector Development and Management focusing on emerging road development management strategies. Overall, the trainings were selected by the respective Roads Authorities based on capacity assessments conducted in close collaboration with the above-mentioned stakeholders in each region. Based on the study findings, these training and capacity building were very relevant since RDA and PHA had not yet established the competencies and capacities for internal training and skills building on the same. Discussions with PHA and RDA revealed significant improvement in the efficiency and competency of their trained staff as the authorities now do not have to rely on external expertise, as was the case before the capacity building as stated by the Public Relations and Communications Officer from PHA:

*“...Our officers were trained under the project, which has greatly increased their skills and capacity to deliver quality work, understand how to efficiently conduct assessments such as the aggregate tests for asphalt, concrete works, how to handle different classes of concrete, which we are confident will improve the quality of our roads construction works, supervision, and also training of new staff. The staff who were trained have been able to train and offer capacity to the other staff within the authority. This has increased the confidence of our staff in their work...”*

**Public Relations Officer, PHA- Garowe**

*“...As RDA, we partnered with CARE on the BRIDGES project to provide technical and practical skills training for TVET Trainees in our lab, while at the same time, benefit by having the project to provide capacity building to our officers. We Managed to get on board 47 students for training in our labs and also in our ongoing road construction projects. The partnership enabled the TVET trainees acquire much needed hands on experience that is essential to the job market. Majority of the trainees we provided internship training too are absorbed by various construction companies in Hargeisa, some permanently, while others on project temporary basis. For our staff, 7 were trained and capacity built on roads construction and surveying, which has not only improved their skills, but also confidence and quality of their work...”*

**Roads Development Authority (RDA) Manager- Hargeisa**

### **Scholarships for Underprivileged and Marginalized Students**

The monthly scholarship incentives for the trainees were facilitated to both female and male trainees during this reporting period. The scholarship was only meant for female students', but the MTE recommended that male trainees should also be supported with the incentives to reduce their burden on transport costs and living maintenance during training. The action aimed to provide scholarships to 234 (184 certificate/diploma, 50 undergraduate degree) deserving trainees from poor families with a focus on female trainees. Instead, both female and male trainees 222 (123 female, 99 male) or (108 certificate, 112 diploma) in the different regions were supported with USD 50 each prorated based on attendance spanning through to their training and apprenticeship. The male beneficiaries comprised 40 from Galmudug, who were pursuing courses in Mogadishu and an additional 68 male beneficiaries pursuing diploma courses benefiting after the MTR recommendation targeting all male trainees is provided in Table 4.21.

**Table 4.20: Scholarship per Region**

Region	Roads				Renewable Energy				Overall Total		
	Male	Female	Total	% Female	Male	Female	Total	% Female	Male	Female	Total
Somaliland	7	23	30	77%	14	16	30	53%	21	39	60
Puntland	10	14	24	58%	13	12	25	48%	23	26	49
Mogadishu	19	3	22	14%	21	6	27	22%	40	9	49
Jubaland	9	9	18	50%	6	40	46	87%	15	49	64
<b>Total</b>	<b>45</b>	<b>49</b>	<b>94</b>	<b>52%</b>	<b>54</b>	<b>74</b>	<b>128</b>	<b>58%</b>	<b>99</b>	<b>123</b>	<b>222</b>

The scholarship fund had significant impact on the livelihood of beneficiaries as noted by one of the graduate trainees from Kismayo:

*“...I was jobless living with my family. My family was entirely dependent on small income from my mother who runs small cosmetic shop. I was lucky to have been selected to join KTI and also benefited from the scholarship that was offered. The scholarship enabled me to attend classes as it provided for my tuition, transport and lunch; When I graduated with a diploma in solar energy, my life was completely changed, as I joined other five graduate trainees and we were able to start our own solar business company called “Gashaan Solar Company”. We install solar for hotels, governments institutions and houses. We also install and repair electricity wires, which has enabled me to earn almost 600 Dollars per month. I use the income to support my family buy food and also meet other financial needs in the family. We are hoping to win solar more tenders soon and hope we be recognized as greatest company in renewable energy services.*

**Female Diploma Graduate, Solar Energy, Kismayo**

The scholarship funds for SNU and Gollis had been disbursed with each university receiving 27,000 euros. For Gollis, the scholarship was initially meant to cover 25 students, however, according to the university administration, these funds could only cover 15 students adequately, and not 25 as initially planned. This was based on training cost analysis at the institutional level. The remaining 10 students were supported by the institutional funds. On the other hand, 39 students from SNU equally benefited from the funds. Few issues were raised with the university scholarship:

1. SNU expected to get a larger share of the fund since they had a larger number of students in the Electrical Engineering programme compared to Gollis University. The rationale used to allocate the money was not adequately communicated, which created the impression that the project was favoring Gollis, which was a private university.
2. Gollis expected a larger scholarship fund than 27,000 Euro. The university initial computation was projected at 70,000 Euro. This was indicative of the communication challenge on the actual specifics of the project, expectation, activity timelines among others. However, the issue was resolved after Gollis wrote to both the EU and TU/e.
3. Late disbursements: - The scholarship funds were disbursed in the last quota of 2019; three (3) semesters after the university programme had already started. SNU did not have any challenges on the same since public funds available for university programmes utilized to keep the programme moving. On the other hand, Gollis registered frustration with the late disbursement arguing that students required access to the funds as soon as the programme commenced since the university did not have access to alternative public funds to cover for students' expenses.

### Future Considerations on Scholarship Funds

The following are some of the considerations EU, CARE, and TU/e should consider before implementing similar projects:

1. There is a need for clear communications on scholarship funds. Gollis signed an MoU that stipulated they were to receive a fund that will cover all the 15 curriculum courses. However, available funds could only cover 5 new courses introduced after Tu/e had finalized curriculum

development with the universities. Disparities for MoU provisions were not well communicated in time, and MoU addendum processes could have explained these disparities.

2. A clear funds allocation formula/rationale should be developed and communicated. This is important in dissuading any issues of favoritism, and thus, protect the project implementation accountability and integrity.
3. Male students also benefited from the scholarship fund; however, this was done in the last half of the project. Future projects should consider both male and female trainees for scholarship funds.
4. The project was only covering 3 years, yet the degree programme for Electrical Engineering is 5 years. A better model approach should be adopted in the future to ensure the project implementation schedule are in harmony with the grant period as the grant does not cover university trainees whose traineeship runs beyond the 3-year project periods. This is important in ensuring quality supervision, and monitoring is done within the project period.

### TVET Instructors Trained on Pedagogical Approaches

The training targeted 22 TVET trainers (9 from Somaliland and Puntland each and 4 from Jubaland). However, actual trained trainers/ instructors were 42 (34 Male, 8 female) comprising the MoE, TVET Directorate, Examination Department, 22 TVET trainers from TVET centers and the private sector. These 42 participants were also trained as assessors and verifiers on assessment, certification and apprenticeship so they could conduct more professional and structured supervision. In addition, a refresher training for 12 (11 male, 1 female) TVET Instructors on pedagogy and teaching tactics. This comprised 4 are Hargeisa, 4 from Galkacyo and 4 from Mogadishu. The female teachers do not teach roads and renewable energy but other courses. However, they were brought in to benefit from the CBET training. The training workshops took place at Kismayo Technical Institute, Hayle Barise Technical Development Centre in Mogadishu, HAVOYOCO training center in Hargeisa, and Galkayo Vocational and Training Centre in Galkayo. A refresher training of 17 participants (14 instructors, 3 MoE officials) was conducted in Somaliland. In all the TVETs assesses, instructors had well-developed lesson plans and schemes of work, which had improved the learning outcomes of the trainees. More so, the training had enhanced the confidence of the instructors in content delivery as a result of skills acquired in the structuring of lessons, formulating teaching objectives, lesson aids, and practical demonstrations before class instruction would begin.

**Table 4.21: TVET Instructors Trained on Pedagogical Approaches**

S/N	Region	Male	Female	Total
1	Jubbaland	8	0	8
2	Mogadishu	5	3	8
3	Somaliland	14	5	19
4	Puntland	7	3	10
	<b>Total</b>	<b>34</b>	<b>11</b>	<b>45</b>

### Master Trainers

Six master trainers were recruited from Kanye and Uganda and were based in Hargeisa and Puntland. They offered training and mentorship to local trainers to build and improve their skills and mastery of training content. Mogadishu and Kismayo recruited local master trainers due to security challenges associated with these two regions. The trainers indicated that they had benefited from the master trainer's mentorship, particularly the use of practical lessons teaching aids. The master trainers would also be available in classes during trainers' class lessons and would provide constructive feedback on content delivery, class preparation, and other practical aspects of the teaching that trainers required. As such, the sustainability of skilled TVET trainers has been guaranteed, to the extent that the trained trainers would not migrate from their current stations or regions.

### Training of 22 TVET Assessors

Under the BRIDGES project, 22 assessors had been targeted for training. The purpose of assessors training was to develop competence-based assessors who could offer effective support and assessment of the TVETs trainees learning outcomes. The assessors would then participate in the developed training resources, quality assurance, and TVET standardization mechanisms. By midterm review, 5 assessors had been trained: Jubbaland, 2(1 Male, 1 Female); Mogadishu, (1 Male, 1 Female), Somaliland (1 Male). During the second half of the project, 11 (all Male) assessors were trained in Galkacyo. The aggregate total of assessors trained is 16 (14 Male, 2 Female). The assessors were trained on Competency Assessment methods that focused on the level of practical skills gained by trainees, communication, work-readiness abilities, and attitude observations. Following the training, assessments were conducted for trainee's apprenticeship in Galkacyo, particularly on attendance sheets, and field attachment logbooks. In Somaliland for instance, assessors visited and assessed Havoyoko certificate graduates in Hargeisa. The process strengthened the quality assurance checks required for all certificates and diplomas

#### 4.4 Skills Delivery, Assessment, and Certification Standardized (VQF)

##### **Result 3: Skills Delivery, Assessment, and Certification Standardized Through Further Improvement and Expansion of Scope and Coverage of Vocational Qualifications Framework (VQF)**

As has been noted and documented in the previous sections, harmonisation of VQF for Jubaland, Somaliland, Puntland, Galmudug, and Mogadishu (Puntland and Somaliland have individual regional VQFs) had not been conducted by the final project evaluation. The VQF harmonization was also intended to enhance national consistency in the way vocational skills training, assessment and certification is conducted in Somalia. Based on discussions between CARE, EU and GIZ, the VQF component was recalled from BRIDGES project and transferred to GIZ for implementation, since GIZ had significant funding and ongoing work on the same in Somalia. The unintended implication of this changes was that trainees from all the four regions were not trained using a standardized /harmonized VQF, since GIZ had not finalized the process (the training relied on previous VQFs for Puntland and Somaliland that did not have Roads sector Skills training accreditation and assessment).

#### Action Points

In the future, renegotiation of project components should come with undertaking from partner agencies to deliver within the project period. As such, the EU will have to follow up with GIZ to determine the status of the VQF and its implementation and liaise with local state governments of its implementation.

#### 4.5 Evaluation Based on OECD-DAC Criteria

The OECD-DAC criteria usually focus on the project relevance, efficiency, effectiveness, coordination, impact, and sustainability of project interventions. This is discussed as follows:

##### Project Relevance

To assess the relevance of the BRIDGES project, we examined the problem this project was trying to solve, and whether the beneficiaries required the solutions being provided by the project. Some of the areas that made the project relevant include:

- ❖ **Roads and Renewable Energy Skills deficit:** - The labor market assessment had indicated that Somalia has a significant deficit in roads and energy vocational skills training. BRIDGES project timely introduction of roads and energy skills training has made a significant contribution of 416 (181 roads construction, 235 renewable energy) trainees to the labor market. The TVET graduates are already adding value to the labor market with 107 (roads and energy sector) being in some form of employment or business entrepreneurship. Additionally, the project supported a further 50 trainees to undertake Electrical Engineering

courses at SNU and Gollis University. Upon completion, the graduates will add value and skills to the renewable energy sector

- ❖ **Capacity Building of Private and Public Sector officials, and TVETs:** - To enhance the quality of roads constructions and solar energy, the project trained 28 RDA officials (24 male, 4 Female) in the roads sector, 42 (32 male, 10 female) TVET instructors, and 22 (20 male, 2 female) assessors to build quality assurance processes, knowledge, and skills, which was achieved. The project also provided 256 (138 females, 118 male) scholarships to underprivileged students to gain access to skills training.
- ❖ **Electrical Engineering Degree Course:** - The project helped establish a curriculum for an electrical engineering course at SNU and Gollis University for the first time in Somalia/Somaliland. Additionally, the project had capacity-built lecturers from the two universities, in addition to installing a state-of-the-art EE Labs and equipment for practical lab lessons
- ❖ **CBET and CBT Curriculums:** The project developed 10 CBT packages for roads and energy sector, and also a CBET curriculum to enhance business and entrepreneurship knowledge to graduates, which has been essential particularly for those who have ventured into business. This packages and curriculums were not available before the project commenced

Based on the aforementioned, the evaluation concludes that the project interventions and activities were relevant to beneficiaries and the labor market.

### Project Implementation Efficiency

To measure efficiency, we examined how available project resources were utilized to achieve project output and outcomes.

- ❖ **The Selection Process:** Trainees selection was done through a fair process that ensured adequate gender representation. However, the 30% target for female trainees has not been achieved largely due to cultural and negative societal perceptions towards females in technical skills sectors. Adequate resources were spent on the selection process. MoE was adequately involved in establishing the list for certificate and diploma level trainees
- ❖ **Enrolment and Dropout Rate:** - The project targeted to enroll 500 (30% women) youth, out of which, 477 were enrolled. Those who completed the course were 416 (181 roads, 235 energy) which translated to an 87% success rate. Only 13% dropped out of the project due to migration to other regions, joining other training programmes, while a few dropped out due to difficulty in grasping course content
- ❖ **Communication:** - At times the project lacked a coherent communication and implementation coordination strategy particularly for University components. Partners (SNU and Gollis) lacked timely information on actual project implementation components (i.e. fund scholarship), equipment setup and procurement, etc. This triggered back and forth communications that sometimes-surpassed official channels of communication. TU/e was equally frustrated at the lack of effective and constant communication both from CARE and the Universities, which delayed their activity implementation.
- ❖ **M&E Structure and Implementation:** Joint monitoring, quarterly and annual reports, site visits were conducted efficiently, and reports disseminated on the same on time, which enabled CARE and other implementing partners to make necessary adjustments and interventions in time.

### Project Implementation Effectiveness

The effectiveness of the project was assessed by examining whether the project interventions solved the issues that made project interventions relevant in the first place. We mostly examined the implementation model and approach the project adopted. This is discussed as follows:

- ❖ **Private Sector Partnership Approach:** - Much should have been done in the initial stages to map private sector interests, capacity, and obligations. This was not effectively done, as the project coordinators spend quite a bit of time trying to get private sector companies to participate in the project. This was effectively done in the second half of the project after 13 companies came on board, and were willing to offer the practical lessons, including apprenticeship and internship opportunities.
- ❖ **Steering Committee for Project Coordination:** - Initially, it was envisaged that an overall steering committee would guide project implementation. However, differences between regional governments in Somalia made it difficult to achieve. As such, regional committees were formed, and they were effective in monitoring implementation in the second half of the project.
- ❖ **Capacity Building of TVETs:** - Capacity building for TVETs entailed training of (42) instructors, trainers of trainers, development of curriculums (CBET and CBT). This component has done effectively. The curriculums are currently being used in the TVET centers.
- ❖ **Capacity Building Government Officials** - Capacity building government officials included 22 TVET Assessors, 28 RDA and roads sector officials, and also MoE officials. This component was very effective and will contribute to the future sustainability of the quality of TVET skills training programmes.
- ❖ **EE Lab Installations:** - The delays in the installation of the EE Labs at Gollis and SNU affected the effectiveness of the labs to the trainees and lecturers. Delays were occasioned by protracted procurement processes. However, labs were finally installed, and since the university programme takes 5 years, trainees have adequate time to use the lab. There is a need to capacity build university EE Lab technicians on the programming of the Power quality Meter, as this is still a challenge affecting the effectiveness of the lab work.

## Project Coordination

Project coordination assessed how the project partners and donors interacted to ensure the success of project implementation. The following was noted:

- ❖ **Coordination of Government Ministries and Agencies:** - CARE had done an excellent job in mobilizing and coordinating the Ministry of Education, Ministry of Roads and Transport and Ministry of Energy, and their respective agencies (in Puntland, Somaliland, Mogadishu, and Jubaland) to participate in the project. There were regional quarterly review meetings, monitoring meetings, in addition to case meetings that happened between CARE and MoE, Ministry of Youth and Labour, and gender services.
- ❖ **TVET Component Coordination:** - The implementation of TVET skills training component for student trainees, and Trainers, Assessors was well coordinated through site support visits, and monitoring visits to the TVET centres, telephone calls and emails to ensure seamless project implementation. CARE established a good working relationship with all the TVET Centres which was critical to curriculum implementation, and also relation-building with the private sector companies for apprenticeships.
- ❖ **TU/e -Universities Coordination:** - The university Degree course implementation had coordination challenges. First, the coordination of lecturers' initial training in Nairobi was not done well. Logistical challenges on traveling, Visa, accommodation was quite a challenge. CARE should simplify logistical processes to enable quick turnaround for a travel request. And other logistical issues such as Visas, and insurance cover. This was a persistent issue even for the training in Mekelle and Hargeisa.

## Project Impact

Project Impact was assessed based on project contribution to gender inclusion and equity, institutional strengthening, and better livelihood opportunities for graduate trainees:

- ❖ **Gender Inclusion and Equity:** - In Somalia, the roads and energy skills training are mostly the reserves of the male trainees. Before the BRIDGES project, women could not fairly compete nor seek jobs in the roads and energy sectors. The project managed to train 43 women (26 certificates, 17 diploma) in road construction skills training, and 66 women (46 certificates, 20 diploma) in renewable solar energy skills training. This achievement constituted 26% of all trainees who completed the programme.
- ❖ **Institutional Strengthening:** - TVETs, Government Ministries (Energy, Roads, Education) received capacity strengthening through training of officers, instructors, and assessor. This included the establishment of quality frameworks, curriculums (for TVET and University Degree programme), and EE Labs for University programmes that will be used to train and equip graduates for many years to come.
- ❖ **Livelihood Opportunities:** - One of the aims of the BRIDGES project was to enhance livelihood opportunities for youth to earn income by engaging in the labor skills market. Among the (416) graduates who finished the programme, 107 (75 male, 32 female) are in some form of employment (47 in the private sector, 49 in self-employment, and 11 in the public sector). All the graduates in employment indicated they were able to support their families and are living a decent life through their wages and incomes.

*“...As RDA, we partnered with CARE on the BRIDGES project to provide technical and practical skills training for TVET Trainees in our lab, while at the same time, benefit by having the project to provide capacity building to our officers. We Managed to get on board 47 students for training in our labs and also in our ongoing road construction projects. The partnership enabled the TVET trainees acquire much needed hands on experience that is essential to the job market. Majority of the trainees we provided internship training too are absorbed by various construction companies in Hargeisa, some permanently, while others on project temporary basis. For our staff, 7 were trained and capacity built on roads construction and surveying, which has not only improved their skills, but also confidence and quality of their work...”*

**Roads Development Authority (RDA) Manager- Hargeisa**

*“...after I finished my course class training at Havoyoko TVET, I was attached to Gollis Energy for my internship and practical lessons. I am a lady and was afraid how the male technicians will treat me or if they will accept to train me. But thanks to Allah, they treated me well, and took me to every installation project they were working on for the entire period of three month. I really learnt a lot. I do not have a permanent job yet, but I get called by Gollis team from time to time to work on their solar installation projects and they pay me well. I am hoping they will employ me in their company soon. At home, I have repaired all the sockets and switches that were faulty...”*

**Diploma Female Trainee: Hargeisa -Somaliland**

*“...Before the project began, Somalia/Somaliland had a big gap in number of available skilled technicians and engineers both in the road construction sector and solar /renewable energy sector. We used to get technicians from neighboring countries like Kenya to do even simple solar installations. However, the training of TVET graduates has provided much needed skills to the job market. For example, the road constructions students can become future engineers as they continue to grow in their career. Currently, there are renewable energy graduates who have already formed their own company and offering solar technical installation and solutions all over Kismayo. Others have been employed. they are earning a living...supporting their families. The skills training has forever transformed their lives...”*

**TVET Trainer – Kismayo Technical Institute, Jubaland**

## Project Sustainability

Project sustainability was assessed by examining mechanisms put in place to ensure the gains made under the project are sustained beyond the project period:

- ❖ **Capacity Building and Training:** 28 Roads authority officials from each regional government have received capacity training as a way of enhancing their skills and efficiency in the management, supervision, and quality assurance in road construction beyond the project period. Secondly, capacity building of 22 TVET assessors, 42 TVET instructors, and trainers of trainers will ensure the capacity of TVETs to produce high-quality graduates is maintained beyond the project period. For the universities, the establishment of EE Labs will ensure Electrical Engineering trainees at the universities (SNU and Gollis) have continuous access to state-of-the-art modern renewable energy technology and tools for many years to come. This will not only contribute towards the quality of trainees but also research and development in the renewable energy sector. TVETs institutions also received solar and road construction skills sector lab training equipment that will be used in the institutions beyond the project period.
- ❖ **Youth Skills Training:** Vocational skill training offered to the 416 (23% female) youth will be essential for livelihood sustainability beyond the project period. The youth have been able to use the acquired skills to seek employment, establish their entrepreneurship ventures, and others are providing services in the public sector.
- ❖ **Equipment and startup kits :-** Trainees were provided with startup kits (solar technician tool kit, overcoats, helmets for solar energy trainees, and Overcoats and helmets for road construction trainees)

## 4.6 Lessons Learned

Some of the lessons learned during the project design, implementation and partnerships:

### Project Design

The following are lessons learned from project design:

1. **Project Time and Schedule:** - The project design should cater for adequate time for each of the phases of the skills delivery to be realized. Thus, the project duration should be realistic and allow time for delivery of the formal skills particularly the Diploma and Degree courses, which need a longer timeframe to prepare and complete. The degree programme could not be executed within three years (project period) as initially anticipated by the project design. Secondly, a new university programme /course cannot be established within 3-6 months upon project commencement. Rigorous approvals processes are required by the Ministry of Education and Higher Learning, and Education Regulatory Authorities. The process was very slow and required more time for consultations, systematic approvals, course structure development, curriculum, and quality assurance approvals by regulatory authorities. **Lesson learned** is that the project should have provided sufficient lag time for components that partners do not have direct control such as curriculum development and approval processes (which is in the domain of MoE and education stakeholders).
2. **Somalia Context Specific Challenges:** - Project design should have appreciated context specific challenges when dealing with Somalia. For instance, regional states lack effective working relations with federal government, are discorded by clannism and tribal politics that make it difficult to have a singular approach to project implementation for each region. **Lesson learned** is that for effective management of multiple regional projects should be cognizant of divergent regional governance contexts, and not adopt a one size fits all approach. Each regional office should have leeway in designing government and stakeholder's engagement strategies in the future projects.

3. **Universities and Grant Making:** - University systems are tailored towards delivering courses for students but not efficient in project delivery for humanitarian context that sometime relies on goodwill of local governments, and local partners who might not have adequate capacity to onboard technical project components. Delays in course approvals by MoE, delayed procurement processes (as explained in challenges section) compounded efficient delivery of Lab equipment and establishment of the Labs. TU/e did not have local presence to aid in follow ups with the universities. As such, simple queries further delayed implementation. **Lesson learned** is that in future, project should be designed in a manner that enables partners to play to their strength, and capacity. Since local partners understand the context better, they should be allowed the leeway to conduct project implementation aspects (in cases of multiple partners or consortiums).
4. **The Project Fraud Incidences:** - There were fraud incidences reported during the project period that implicated the project manager and the project technical advisor. By the time of the final evaluation, investigations were still on-going, therefore, this report could not document the extent to which the fraud incidences had impacted project delivery. Care managers will provide comprehensive report to EU on the same once the investigations have been concluded. **In future, adequate check and balance mechanisms** should be in place to guarantee safeguarding of project resources from fraud incidences. This should include (but not limited to) **thorough background checks for those management and procurement are providing tenders to eliminate cases of conflict of interest.**

### Project Implementation

The following are lessons learned from project implementation:

1. **Projects Implementation at federal and state governments in Somalia:** - Somalia has both Federal and state level governance that is not fully developed, and roles well-articulated. The country's constitution is still provisional. An MoU that outlines the role of the states and the federal government in the education sector was signed with the help of EU. However, adherence to this MoU has been weak. Each state has different regulations for education sector, with made harmonization and implementing the project across Mogadishu, Somaliland, Puntland, and Jubaland a challenge. **Lesson learned:** It would have been better for the BRIDGES project to have adopted the zonal approach (similar to what EU has adopted for its education programs in Somalia) rather than cross regional approach. Future projects should follow this approach until such a time that the Federal government regulations are adopted across the board.
2. **Sequencing of Partners Internal Processes:** - TU/e had different internal project approval processes (a proposal, inception, costs, work plans, budgets, procurement) as compared to CARE. Discordance between the two resulted in delays in the initial stages of the process. Project Proposal documents from CARE were submitted to TU/e with the assumption that the approval process would be swift for project commencement. However, this was not the case. TU/e internal legal processes and procedures did not provide leeway for TU/e technical teams to approve CARE partnership documents and budget approvals without due process. TU/e team felt frustrated that the documents were not delivered in time (by CARE) for due diligence and approvals by the TU/e Board, while the CARE project team was frustrated at the slower pace TU/e was handling the approval process. **Lesson Learned:** Effective feedback mechanisms should be discussed and agreed between partners to avoid misunderstanding on specific project components and implementation requirements in future.
3. **Effective Private Sector Partnerships:** - Private sector players have interest that have to be addressed for effective partnership. The project was not flexible enough to address the private sector interests. Lack of incentives made it difficult to onboard private sector

companies. In future, project partners should be flexible enough to address the mutual interest of private sector players. Incentives should not be perceived only in terms of monetary payments, but tax breaks, or capacity building of company teams. Secondly, it was difficult to hold private sector companies accountable to a particular standard for practical lessons. **Lesson Learned:** Local Somali companies have interests that should be addressed for mutual and effective engagement. Future projects should establish private companies' interest before entering into MoUs.

## 4.7 Recommendations

### Project Related Recommendations

The following are recommendations at the project implementation level and future programming opportunities:

1. **Phasing of TVET Skills Training:** - There is need to ensure that future projects have well-phased TVET skills training to ensure quality. First, adequate time should be allocated to the certificate programme (6-9 months), and diploma (12-24 months). This will not only ensure course units are not rushed, but adequate assessment, examining, and practical lessons are exhaustively implemented. The BRIDGES project skills training was highly compacted to ensure delivery is done within project period. Training of lecturers, tutors and assessors took place within the same period as TVET skills training for graduates. Training of assessors, tutors and trainers should come before actual skills training for graduates to ensure delivery of quality skills training.
2. **TVETS Capacity Building:** - TVETs in Somalia are still in need of capacity building. Particularly institutional management skills, infrastructural development (classes, desks, workshops, equipment) and institutional income generating projects (based on each institutional strength and profiling). Generally, most of the TVET institutions have functional classes, but with minimal tools and equipment for technical skills training. The BRIDGES project provided workshop equipment to support skills training for roads and renewable energy, however, the programme only covered two skills training areas. Other technical skills training need revamping and equipment that is relevant to the labor market needs.
3. **Enhance University Skills Training Partnership:** - The BRIDGES project partnership between TU/e, Gollis, and SNU has demonstrated that there is a need to relook at the university curriculums offered in the project regions. For the Electrical Engineering programme, the needs assessment revealed significant gaps in curriculum formulation and design, which led to the introduction of five additional course units, and revamping and establishment of EE Labs for quality skills training. However, this programme focused only on the two skill areas. TVETs and local universities expressed the need to have comprehensive assessment of their skills training programmes to ensure adequate and relevant units are offered for each course. This approach will go a long way in enhancing labor market skills training within Somalia regions.
4. **Establish TVET Skills Training in Water and Sewerage Systems:** - Since 2017, droughts followed by heavy rains have caused significant havoc on water, and sewerage systems, yet little has been done to invest in skills training both at TVET levels, and University levels. Skills that fall within water and sewerage systems such as water system engineers, plumbers are essential and should be established. The BRIDGES programme was not supposed to cover the water and sewage systems; however, Somalia context cannot be delinked from perpetual droughts, water shortages and floods that affect other skills training and humanitarian work.
5. **Establish a Harmonised VQF:** - At the commencement of the BRIDGES programme, only Somaliland and Puntland had VQF, which had not been revised to include the roads and renewable energy skills training. One of the objectives of the BRIDGES was to help all the project regions harmonise their VQFs to ensure training standards, course units and assessment and accreditation criteria was similar. However, by the time of this final project evaluation, the harmonised VQF had not been established, including harmonised training and

accreditation manuals. This component was transferred to GIZ. There is a need for the EU to follow up to ensure VQF has been implemented.

6. **Gender Sensitivity Employment Promotion Policy:** - There is a need for future programmes in TVETs skills training to help both the federal government and regional state governments to develop a gender sensitivity employment promotion Policy. At the Ministry of Education level, no policy to guides gender sensitivity training and employment promotion strategies. The existing gender policies need to be revised to include gender sensitive employment promotion strategies.

## ANNEXES

### Annex I: Tracer Study Findings

#### Trainees Employment Status

This tracer study sought to examine graduate trainee employment status after completion of the BRIDGES skills training programme. Based on the findings, the majority 285 (71%) of trainees who completed the programme are unemployed. The findings further revealed that 76 (19%) who are self-employed; 36 (9%) who are employed in the formal sector, and 8 (2%) who are unpaid workers. Jubaland had the highest number of graduate trainees who were informal employment (24%), followed by Mogadishu (16%), Somaliland (6%) and Puntland (4%). Those in self-employment, Somaliland recorded (24%) of graduates, followed by Jubaland (24%), Mogadishu (16%) and Puntland (6%). For those unemployed, Puntland had the highest percentage (88%), followed by Jubaland (73%), Somaliland (65%) and Mogadishu (63%). The main reasons for unemployment included (1). Covid-19 restrictions that led to lay-offs due to closure of companies; (2). Fewer employment opportunities in Somalia public and private sectors; (3). On-going apprenticeship and internships yet to be completed before trainees could actively seek employment.

#### Graduate Trainee Employment Status

Region	Employed	Self-employed	Unemployed	Unpaid worker	Total
Somaliland	7 (6%)	32 (27%)	78 (65%)	3 (3%)	120
Puntland	3 (4%)	5 (6%)	72 (88%)	2 (2%)	82
Mogadishu	18 (16%)	16 (16%)	63 (63%)	3 (3%)	100
Jubaland	3 (24%)	24 (24%)	72 (73%)	0 (0%)	99
<b>Total</b>	<b>31 (8%)</b>	<b>77 (19%)</b>	<b>285 (71%)</b>	<b>8 (2%)</b>	<b>401</b>

#### Levels of Incomes and Livelihoods

The tracer study examined the levels of income for graduate trainees. The findings show that majority of respondents (52% male, 19% female) earned less than \$100 per month; (10% both male and female) earned between \$100 - \$200 per month; (2% male) earn between \$201 and \$300; (1% male) earned between \$301 and \$400 and finally, (8% male, 2% female) earned more than \$400 dollars per month. The summary of regional distribution is provided in the following Table.

#### Levels of Graduate Trainees Income

Region	Less than \$100		\$100- \$200		\$201- \$300		\$301-\$400		more than \$400	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Somaliland	73(61%)	31(26%)	9(8%)	0(0%)	3(8%)	0	1(1%)	0	3(3%)	
Puntland	34 (41%)	14(17%)	3(4%)	0(0%)	1(1%)	0	1(1%)	0	21(26%)	8(10%)
Mogadishu	68 (68%)	4(4%)	11(11%)	1(1%)	3(1%)	0	2(2%)	0	10(10%)	1(1%)
Jubaland	33 (33%)	27(27%)	19(19%)	19(19%)	1(1%)	0	0	0		
<b>Grand Total</b>	<b>208(52%)</b>	<b>76(19%)</b>	<b>42(10%)</b>	<b>20(10%)</b>	<b>8(2%)</b>	<b>0</b>	<b>4(1%)</b>	<b>0</b>	<b>34(8%)</b>	<b>9(2%)</b>

#### Employment by Sector

For the 116 graduates who were in some form of employment, we examined the types of employment sectors they were engaged in. The findings show that majority (66%) of those employed are in the private sector out of which Somaliland had (86%); Puntland (60%), Mogadishu (54%), Jubaland (52%). Those in public sector employment constituted (16%), out of which (7%) were in Somaliland, (11%) in Mogadishu, and (41%) Jubaland. The local government had employed (4%) of the graduates, out of which, (10%) were in Puntland, and (11%) in Mogadishu as summarized in the following Table. The list of companies where the graduate trainees have been engaged for employment is provided in Annex IV.

#### Graduate Trainees Employment by Sector

Region	Private	Public	Local government	NGO/CBO	International organization	Entrepreneurship /business start-up
Somaliland	36 (86%)	3 (7%)	0%	0%	0%	3 (7%)
Puntland	6 (60%)	0 (0%)	1 (10%)	0%	0%	3 (30%)
Mogadishu	20 (54%)	4 (11%)	4 (11%)	0%	1 (3%)	8 (22%)
Jubaland	14 (52%)	11 (41%)	0 (0%)	1 (4%)	0%	1 (4%)
<b>Total</b>	<b>76 (66%)</b>	<b>18 (16%)</b>	<b>5 (4%)</b>	<b>1 (1%)</b>	<b>1 (1%)</b>	<b>15 (13%)</b>

Most (40%) of the graduate trainees who are employed are full term employees, out of which (33%) are in Somaliland, (20%) in Puntland, (78%) in Mogadishu, and (4%) in Jubaland; Part-time employment, (60%) Somaliland, (40%) Puntland, (8%) Mogadishu, (7%) in Jubaland. For those on short term contract, (5%) Somaliland, (10%) Puntland, (5%) Mogadishu, (70%) in Jubaland. For those on long term contracts, (5%) in Mogadishu, (4%) in Jubaland as summarized in the following Table.

#### Graduate Trainees Employment Term

Region	Full Time Employee	Part Time Employee	Contract Long Term	Contract/ Short Term	Other Specify	Total
Somaliland	14 (33%)	25 (60%)	0	2 (5%)	1 (2%)	42
Puntland	2 (20%)	4 (40%)	0	1 (10%)	3 (30%)	10
Mogadishu	29 (78%)	3 (8%)	2 (5%)	2 (5%)	1 (3%)	37
Jubaland	1 (4%)	2 (7%)	1 (4%)	19 (70%)	4 (15%)	27
<b>Total</b>	<b>46 (40%)</b>	<b>34 (29%)</b>	<b>3 (3%)</b>	<b>24 (21%)</b>	<b>9 (8%)</b>	<b>116</b>

#### Tracer Survey Graduates Training by Course

Region	Renewable Energy	Roads and Construction	Total
Somaliland	67 (56%)	53 (44%)	120
Puntland	42 (51%)	40 (49%)	82
Mogadishu	64 (64%)	36 (36%)	100
Jubaland	75 (76%)	24 (24%)	99
<b>Total</b>	<b>248 (62%)</b>	<b>153 (38%)</b>	<b>401</b>

#### Perspective on Course Relevance

This tracer study sought to examine from the graduate's perspective whether they considered the course training they received as relevant and whether they were satisfied with the labor market skills training. Majority of the respondents (89%) indicated the course was relevant, which constituted (98%) Somaliland respondents, (83%) Puntland; (82%) Mogadishu; and (91%) Jubaland. Only (11%) of graduate trainees indicated the courses were not relevant as summarized in the Table below. When asked why they thought the course was not relevant, most the (11%) indicated they had not secured a job. Their basis of relevance was not weighted mostly on the knowledge and skills attained, but their ability to secure a job. On the other hand, those who indicated the course was relevant based their argument of skills and knowledge acquired, which they noted had enabled them either secure jobs, entrepreneurship opportunities, and long lasting knowledge that is essential for current and future livelihood.

#### Course Relevance

Region	Yes	No	Total
Somaliland	118 (98%)	2 (2%)	120
Puntland	68 (83%)	14 (17%)	82
Mogadishu	82 (82%)	18 (18%)	100
Jubaland	90 (91%)	9 (9%)	99
<b>Total</b>	<b>358 (89%)</b>	<b>43 (11%)</b>	<b>401</b>

When graduate trainees were asked whether they were satisfied with their current job or job prospects after graduating, 333 (83%) representing (260 male, 73 female) were satisfied or somewhat

satisfied compared to 68 (17%) representing (36 male, 32 female) who were dissatisfied with their current jobs or future job prospects as summarized in Table below. Level of dissatisfaction was mainly with those who were frustrated for not securing a job after training.

### Trainees Level of Satisfaction with Current / Future Job Prospects

Region	Highly satisfied		Satisfied		Less Satisfied		Not Satisfied		Grand Total
	Male	Female	Male	Female	Male	Female	Male	Female	
Somaliland	6 (5%)	0	47(39%)	6(5%)	28(23%)	11(9%)	8(7%)	14(12%)	120
Puntland	34(41%)	10(12%)	22(26%)	12(15%)	1(1%)	0(0%)	3(4%)	0(0%)	82
Mogadishu	14(14%)	3(3%)	53(53%)	2(2%)	12(12%)	0(0%)	15(15%)	1(1%)	100
Jubaland	2(2%)	1(1%)	18(18%)	13(13%)	23(23%)	15(15%)	10(10%)	17(17%)	99
<b>Grand Total</b>	<b>56(14%)</b>	<b>14(3%)</b>	<b>140(35%)</b>	<b>33(8%)</b>	<b>64(16%)</b>	<b>26(6%)</b>	<b>36(9%)</b>	<b>32(8%)</b>	<b>401</b>

When graduate trainees were asked whether practical lessons and internships offered under the project were relevant to skills acquisition and the job market, majority (81%) noted this to be the case, while (19%) disagreed. For trainees who indicated that they benefited from internship and practical lessons, Somaliland had (73%); Puntland (82%); Mogadishu (78%); and Jubaland (91%) as summarized in Table below.

### Relevance of the Practical Lessons and Internship

Region	Yes	No	Total
Somaliland	88 (73%)	32 (27%)	120
Puntland	67 (82%)	15 (18%)	82
Mogadishu	78 (78%)	22 (22%)	100
Jubaland	90 (91%)	9 (9%)	99
<b>Total</b>	<b>323 (81%)</b>	<b>78 (19%)</b>	<b>401</b>

### BRIDGES Skills Training Vs Market Skills Requirement

Based on the baseline survey that was conducted at the beginning of the project, The BRIDGES project had identified low quality of skills training in renewable solar energy, however, road's construction skills training did not exist. The labor market skills deficit was unfairly skewed against female trainees in skill areas that are usually the reserve of male counterparts. At the beginning of the project (Mogadishu, Kismayo, Galmudug, and Hargeisa, there were fewer to no female trainees in the and renewable energy skills training and employment. BRIDGES managed to enroll 68 (22%) female youth in roads and renewable energy certificate training, and 44 (26%) female youth in roads and renewable energy diploma skills training. Discussions with employers and the Ministry of Education, Ministry of Youth, Gender and Labor revealed that:

- v. **Skills were Relevant: - The perception of employers** for both roads and renewable energy sector was that: (a). The skills were relevant; (b). Trainees were well-trained both for curriculum competency based and also dual-based (apprenticeship); (c). The trained youth met employers' educational requirements both for roads and renewable energy in all the regions. **The perception of Ministry of Education, Ministry of Youth and Labor** was that the skills training was relevant as the trained youth had boosted availability of skilled personnel in roads and renewable energy labour market that had significant gap. **Perception of the trainers** was the roads and energy skills training was relevant as this had enhanced available skills in the market, which will reduce Somalia relying on external expertise on the same.
- vi. **Practical Lessons and Internships were Essential:** - Practical lessons provided under the project were essential for introducing the youth trainees to the realities and required skill sets for their chosen vocation. Most of the trainees in all regions received practical lessons and appreciate the impact the hands-on skills training had on their career path. For those who

are employed (Private, public and self-employment) entered into the job market well prepared for work. **The perception of private sector companies** for both roads and renewable energy sector noted: (a) increase in reliability of trainees to accomplish tasks due to practical lessons; (b). Increased confidence in trainees at work; (c). increased productivity while using variety of field work tools for both roads and renewable energy sectors. **The perception of Ministry of Education, Ministry of Youth and Labor** on practical lessons was that: (a). Trainees got opportunity for hands on experience; (b). Hands of experience was the driving factor for most of the self-employed trainees as they had confidence to accomplish market level labor assignments and work; (c). Practical lessons had strengthened market skills training collaborations between the TVETs and the private sector companies, which enhanced reliability of graduates from the participating TVETs under the project. (d). For the roads sector, women had been sidelined for a long time due to cultural biases. However, BRIDGES had made it possible for communities to change their perception on the role of women in high labor-intensive sector like roads construction. (e). Female trainees had increased confidence competing for jobs that were perceived as a reserve for men such as the roads and renewable.

- vii. **Labor market Supply Vs. Demand Perspectives:** - Skills training in solar and renewable energy sector and roads and construction have a demand and supply incongruity in Somalia. Whereas the skills are less in the market, other market dynamics such as social political and development initiatives inhibit synchronous absorption of the supply of the skills. For instance, conflict, Al-Shabab, regional and national political instability have made it difficult for major companies to invest in Somalia. The energy sector is greatly under-developed, yet few companies exist or are willing to invest large networks that would cater for the demand and supply needs. Lack of stable operational environments make it difficult for both private and public firms to seek external capital investments, thus create less jobs that can absorb graduates. Additionally, high employment levels by Somalia youth and adults means that majority of the population are not able to afford high energy costs, or adopt the sustainable renewable energy solar due to poverty. This factors not only inhibit the supply and demand curves, but also This is one of the reasons that explains the large number of unemployment among BRIDGES graduates.
- viii. **COVID-19 Challenges** – COVID-19 restriction had disrupted the transition of trained youth into the labor market as majority of roads construction firms and renewable energy firms closed shop. The impact of this disruptions did not only affect companies' ability to recruit graduates, but also graduates ability to engage in self-employment, nor seek more apprenticeship opportunities. By the time of this tracer study, a decrease in demand for solar repairs, installations, maintenance was reported by renewable energy graduates, while the roads construction graduates found it difficult to access employment opportunities as the few companies and road construction authorities had limited operations, and in most cases, placed indefinite halt on road construction works.

### **Factors Influencing Youth Unemployment in Somalia**

Despite the skills training, the following factors were highlighted as a hindrance to effective youth employment in Somalia:

10. **COVID-19 Disruptions** – As noted in the earlier section, COVID-19 restriction had negatively impacted renewable energy and road construction firms' operations. The normal demand for services had decreased (solar repairs, installations, maintenance for renewable energy). For roads construction, graduates found it difficult to access employment opportunities as the few companies and road construction authorities had limited operations, and in most cases, placed indefinite halt on road construction works. Travel restrictions has made it difficult for trained youth to seek employment and livelihood opportunities in other regions.

11. **Underdeveloped Formal Sector:** - The formal employment sector is still highly underdeveloped and therefore, can only absorb few graduate trainees. This leaves the vast majority (seeking formal employment) to fend for themselves. For instance, out of the Kismayo does not have a single registered construction company, which makes it difficult for road sector graduate trainees to seek employment opportunities in formal setups. Other regions such as Puntland, Mogadishu and Galmudug have established formal sector companies both in the renewable energy sector and roads construction, however, the level of private and public sector investment on development initiatives are very low, which makes it difficult for the formal sectors to absorb all the trainees entering into the skills labor market, despite their qualifications. Mostly, engagement is done on short term to long term contract basis.
12. **Set-Up and Operational Costs:** - A tool kit was provided for both the renewable energy and roads construction graduates (solar energy trainees got a technician's tool kit, overcoats, helmets, while roads construction trainees got an overcoat and helmet. However, this was not accompanied set-up and operational costs necessary for establishing entrepreneurial ventures. In as much as this startup kits were very essential and have placed a big role in getting the trainees with the basic tools, it was not sufficient to launch them into successful entrepreneurship. The cost of starting an entrepreneurship higher that the graduates can afford. Secondly, for the roads construction, startup is not possible, as the sector requires large sums of capital in road construction equipment, only affordable to big and established companies.
13. **Cultural Biases:** - Young women graduate trainees are finding employment more difficult due to cultural biases and traditional gender roles. Male trainees are culturally required to work outside the home to provide for the family, whereas the female trainees are still required to do domestic work, which restricts their chances and opportunities for employment. Secondly, it is culturally easier for a male trainee to be employed than a female trainee.
14. **Clannism:** - In Somalia, the clan you belong too sometime determines whether you get a job or not. Jobs and opportunities are negotiated and awarded based on clannism, and nepotism, which makes it difficult for youth, perceived to be outside the clan to secure much needed employment opportunities.
15. **Lack of experience:** - Despite the BRIDGES project efforts to link trainees with companies for internships, majority were not retained or absorbed at the end of the project due to lack of adequate financial capacity for the firms to absorb trainees onto their payrolls.
16. **Inadequate Government Policies on Youth Employment:** - Both national and regional government have policies on youth training and employment. However, these policies have not been accorded adequate implementation resources. For instance, there is lack of government investment in youth skills training, lack of adequate pool of skilled TVET trainers, and lack of incentives such as tax rebates / breaks for private sector firms providing apprenticeship and employment of youth trainees.
17. **Inadequate Government Resources and Capacity:** - Somalia national and regional governments are not adequately resources. Years of internal conflict, Al Shabab insurgency, poor development of tax and revenue collection systems, and underdeveloped private and public sector capacities have perpetually hindered significant investments into factors of production (land, labor, capital, and entrepreneurship) that can enhance youth employment.
18. **Insecurity:** - Some of the regions covered by the BRIDGES project (Mogadishu, Galmudug, and Kismayo) have serious security and internal conflict challenges. Insecurity in these regions has led to slow reintegration of IDPs to normal society livelihoods as majority of IDPs and refugees in these regions lack access to jobs or employment opportunities. In other regions such as Galmudug North and Galmudug South, lack of trust among the region clans make it

difficult for trained youth to seek opportunities beyond the demarcated sub-regional boundaries (between North and South).

### Impact of BRIDGES Skills Training on Youth Livelihoods

The following are some of the ways the tracer documented the impact of the skills training on the long-term livelihoods of youth under the BRIDGES project.

5. **Increase in Economic Opportunities:** - Despite the fact that majority of respondents 208 (52%) male, 76 (19%) female) earned less than \$100 per month; 42 (10%) male and 20 (10%) female earn between \$100 - \$200 per month; 8 (2%) male earn between \$201 and \$300; 4(1%) male earn between \$301 and \$400 and 34 (8%) male, while 9 (2%) female earn more than \$400 dollars per month, the project has had significant impact on trainees livelihoods. The tracer study findings show that the BRIDGES skills training has provided significant new economic opportunities, particularly for female youth (22% and 26% in renewable energy) who had been sidelined from male dominated highly technical labor market skill areas such as the renewable energy and roads construction. Some of the sited impact include: (a). Earning incomes has reduced levels of poverty among the youth; (b). 19% of trained youth are in self-employment entrepreneurship; (c). Youth both in formal, informal, and self-employment reported they use their incomes to support their family daily food requirements, education for their siblings, and healthcare for their family members.
6. **BRIDGES Project and Self Esteem of Female Graduate Trainees:** - The BRIDGES project has contributed to the improved the self-esteem of female graduate trainees by strengthened the feeling of social female value to socioeconomic development and contribution to society. Secondly, by enabling female graduates to generate their own income has significantly increased levels of self-respect, perceived respect from others and feelings of engagement/cohesion within their community.
7. **Improved Employment Prospects:** - The BRIDGES project has contributed to the increased employment rates (both formal and self-employment) recorded in all regions. Prior to the project, Somalia youth unemployment rates was 68% (UNDP, 2018). Data on 2019-2020 unemployment rates is yet to be documented. However, based BRIDGES graduates' trainees' employment (formal, informal, self-employed), skills training has provided them improved prospects earning a better livelihood through the living wage /salaries they earn. For the trainees who are unemployed, BRIDGES project had provided them skills training and knowledge they will be able to use to access future labor market opportunities, including entrepreneurship.
8. **Reintegration of IDP with the Host Communities** –There has been an increase in social cohesion opportunities between IDP and host community trainees as they were selected to study together. This approach helped to promote good relationships, exchange of investment ideas and sharing of resources

### Graduate Suggestions

Graduates offered suggestions for improving the programme of study by CARE. Although they had rated most aspects of their studies highly positive as explained in previous sections, their suggestions refer to the improvement of these same aspects. These are summarized below in order of importance (most notably mentioned to the least):

- ✓ Provide sufficient learning resources in terms of books and individualized learning practical kits especially translated manuals
- ✓ Ensure adequate time is allocated to practical lessons, particularly with private sector companies. Time that was allocated (3 months) was sometimes not adequate due to scheduling, onboarding and field work exercises. Some of the companies that came on board

- to provide practical lessons did so later into the training programme. Trainees preferred the practical's (apprenticeship to have started at the onset of the course training)
- ✓ Upgrade TVET facilities, particularly classroom desks and learning spaces. In some TVETs, desks were not adequate, broken down, or not suited for workshop practical sessions. The learning spaces such as female friendly spaces, prayer rooms etc. were not available or inadequate which made it a challenge for those seeking such spaces and learning experiences.
  - ✓ Have scholarships to cover all students under the programme for the entire programme period. In the first phase (2017-2018) of the project only female trainees benefited from scholarships. However, the final half of the project (2018-2019) all trainees' (male and female) benefited
  - ✓ Provide private sector linkages and mentorship beyond the project period

## Recommendations

The following are the major recommendation for future programming:

1. **Entrepreneurship Set-Up and Operational Costs:** - provision of a tool kit for graduate trainees is not sufficient for enhancing successful entrepreneurship ventures. Entrepreneurship start-ups require upfront set-up and operational costs such as versatile tools and equipment, office or business and rental spaces, sustainability stipend during business set-up and mentoring period. Over and above start-up tool kits, future projects should incorporate entrepreneurship set-up and operational costs to enable graduates' trainees have sufficient start-up capital and business operational costs. Most graduates leave TVETs with skills and knowledge, but without ability nor capacity to raise necessary capital for their business ventures, which in the end, may discourage entrepreneurship ventures.
2. **Encourage graduates to form cooperatives or savings and loans groups to strengthen economic resilience:** BRIDGES project stakeholders such as CARE and Ministry of Education, Ministry of Youth and Gender should encourage graduates to form cooperatives in order to share common costs such as electricity and to pool resources. To ensure cooperatives are organised and sustainable, stakeholders must coordinate among themselves and the local communities to channel opportunities for work to the youth cooperative groups as they become available. To this end, guidelines on creating cooperatives should be developed that clearly outline roles and responsibilities and provide advice on how cooperatives can market themselves within their community.
3. **Establish linkages to Microfinance Institutions:** - Linkages with microfinance would enable graduate trainees to be able to take advantage of credit facilities to finance their group and individual entrepreneurship ventures, rather than wait to be employed in the formal sector. Somalia still has a small formal corporate sector that cannot absorb all graduate trainees getting into the market
4. **TVETS Capacity Building:** - TVETs in Somalia are still in need of capacity building. Particularly institutional management skills, infrastructural development (classes, desks, workshops, equipment) and institutional income generating projects (based on each institutional strength and profiling). Generally, most of the TVET institutions have functional classes, but with minimal tools and equipment for technical skills training. The BRIDGES project provided workshop equipment to support skills training for roads and renewable energy, however, the programme only covered two skills training areas. Other technical skills training need revamping and equipment that is relevant to the labor market needs.

When respondents were asked whether their current job is a match with the skills training, they received, majority (75%) agreed this to be the case compared to (25%) who disagreed. For those who indicated the skills set was a match to their current job were represented by (94%) Somaliland, (59%) Puntland, (63%) Mogadishu, and (76%) Jubaland. For graduate trainees who felt like their skills did not meet or match their job requirements were represented by (6%) of respondents from Somaliland, (41%) Puntland, (37%) for Mogadishu, and (24%) for Jubaland as summarized in the following Table. Puntland had higher skills training and lack of job skills match due to inter-clan conflicts that have destabilized Galmudug region making the region unstable for private sector investment in renewable

energy and roads and construction. Similarly, Mogadishu possess similar security instability as Galmudug that makes the region volatile for private sector investment and for youth successful ventures into entrepreneurship.

### Skills Training and Labor Market Job Skills March

Region	Yes	No	Grand Total
Somaliland	113 (94%)	7 (6%)	120
Puntland	48 (59%)	34 (41%)	82
Mogadishu	63 (63%)	37 (37%)	100
Jubaland	75 (76%)	24 (24%)	99
<b>Grand Total</b>	<b>299 (75%)</b>	<b>102 (25%)</b>	<b>401</b>

### List of Companies that Offered Apprenticeship

In Mogadishu: Hayle Barise Technical Development Centre: 50 (19 road construction and 31 renewable energy) certificate trainees (47 Male, 3 Female), and a further 50 (46 male and 4 female) diploma trainees completed their internships; In Somaliland, 77 (56 male, 21 female) certificate graduates received apprenticeship, and a further 31(21 male, 10 female) diploma trainees were absorbed by the same companies. In Puntland, 47 (33 male, 14 female) certificate trainees of Galkacyo VTC received apprenticeship, and further 29 trainees (19 male, 10 female) received apprenticeship. In Kismayu; 33 (27male, 6 female) certificate trainees completed the apprenticeship, and further 29 (15 male, 14 female) received apprenticeship.

### Annex II: Private Companies Offering an Apprenticeship for Certificate Graduates

Company Name	Sector	Course	Location	Units
En-Ez Construction company	Road construction	Certificate	Mogadishu	11
Kulmiye Construction company	Road construction	Certificate	Mogadishu	8
Daynile Hospital	Renewable Energy	Certificate	Mogadishu	15
Daynile Administration	Renewable energy	Certificate	Mogadishu	16
Somtel	Renewable Energy	Certificate	Galkacyo	5
National electric	Renewable Energy	Certificate	Galkacyo	8
Fadhisame electric	Renewable Energy	Certificate	Galkacyo	18
Kebarco Const. Company	Road Construction	Certificate	Galkacyo	15
Daryel Construction Company	Road Construction	Certificate	Somaliland	12
Som power Company	Renewable Energy	Certificate	Somaliland	12
Telecom Electric Company	Renewable Energy	Certificate	Somaliland	9
Golis Energy Company	Renewable Energy	Certificate	Somaliland	6
Kaafi Energy Company	Renewable Energy	Certificate	Somaliland	6
Road Development Authority	Road Construction	Certificate	Somaliland	33
WAMO Energy Company	Renewable Energy	Certificate	Kismayu	23
KTI (Institutional Practicum)	Roads Construction	Certificate	Kismayu	10
<b>Total</b>				<b>207</b>

### Annex III: Private Companies Offering an Apprenticeship for Diploma Graduates

Company Name	Sector	Course	Location	Units
Kebarco Const. Company	Road Construction	Diploma	Galkayo	12
Sunway Som Power	Renewable Energy	Diploma	Galkayo	5
Al haramayn and Eng Hassan	Renewable Energy	Diploma	Galkayo	3
Somtel	Renewable Energy	Diploma	Galkayo	5
National and Eng Awoowe	Renewable Energy	Diploma	Galkayo	4
Haile Barise Company	Renewable Energy	Diploma	Mogadishu	28
Banadir Administration Company	Road Construction	Diploma	Mogadishu	22
Golis Energy Company	Renewable Energy	Diploma	Somaliland	6

Kaafi Energy Company	Renewable Energy	Diploma	Somaliland	6
Golis University Energy Department	Renewable Energy	Diploma	Somaliland	8
Roads Development Authority	Road Construction	Diploma	Somaliland	11
WAMO Energy	Renewable Energy	Diploma	Kismayu	12
Kismayu Technical Institute (Institution practicum)	Road Construction	Diploma	Kismayu	17
<b>Total</b>				<b>139</b>

#### Annex IV: List of Companies Offering Employment

Region	Name of Organization	Male	Female	Total
<b>Somaliland</b>	Barbara Cordnate	0	1	1
	Golis Solar Energy	0	2	2
	Hanti Hire Solar	1	0	1
	Horn Technical and Technology	1	0	1
	Solar Energy	1	0	1
	Self Employed	2	1	3
	Kaafi Solar Energy	2	0	2
	Minstry Of Energy	0	0	1
	Najax Construction Company	1	0	1
	Rioarticher	1	1	1
	SomPower	2	0	2
<b>Puntland</b>	Abdulahi Ibnu Cabaas Primary School	1	0	1
	National Electric	1	0	1
	Nebco, National Electrical Power Company			
	Glkio	1	0	1
	Secretary of Local Government	0	1	1
	SomPower Company	1	1	2
	Sooyaal Printer	0	1	1
Sugale Pharmacy	0	1	1	
<b>Mogadishu</b>	Banaadir Electrical Center	1	0	1
	Black Electrical	1	0	1
	Bushra Shopping	0	1	1
	Cadani Electronic	1	0	1
	Cawale Export	0	1	1
	Doogdoon	0	2	2
	Dowlada Hoose	1	0	1
	Governmental	0	1	1
	Hormarinta Bulshada	1	0	1
	Daynille Hospital	1	2	3
	Ijaawo Water Company	1	0	1
	Janet Tnc	0	1	1
	Kacabso Shop	1	0	1
	Local Government	1	0	1
	Parbarta	1	0	1
	Qaraabse Center	1	0	1
	Qaraneey Company	0	1	1
	Safari Electric	0	1	1
	Seic (Somali Electric Installation Company)	2	0	2
	Shiqalow Electric	1	0	1
	Soolja Company	1	0	1
	Up Groing Company	1	0	1

	Waxaada Dagmada	1	2	3
	Xintar Electrical	1	0	1
<b>Jubaland</b>	Alraxma Electricity	1	0	1
	Building Houses for Society	2	0	2
	Fanole Electricity	2	1	3
	Gulwade Electricity	1	0	1
	Hand Build	1	0	1
	JOHD	0	1	1
	Jrs Electrical Programs	0	1	1
	Taqwa	1	0	1
	Wamo Electricity	4	0	4
	Wesco	1	1	2

### Annex V: List of Key Informants

S/n	Name	Affiliation	Description
1	Henny Romijn,	TU/e	International Sustainable Development & Renewable energy innovation specialist
2	Patrick van Schijndel	TU/e	chemical engineer / Renewable Energy Specialist
3	Alula Tadesse	TU/e	Electrical Engineer, Power Quality specialist
4	Mohamed Yusuf	CARE	Garowe Office Areas Manager
5	Abshir Mohamud	CARE	Project Officer
6	Nur Ibrahim	CARE	AYP Coordinator
7	Fatma Wakil	CARE-NL	Project Coordinator -CARE NL
8	Yusuf Ahmed	RDA	RDA Manager -Hargeisa
9	Ahmed Farah	MoE	TVET Director - Somaliland
10	Fartun Abdullahi Osman	Trainee	Case Study - Kismayo
11	Abdirahman Abdi Ahmed	Director	Ministry of Youth and Labor - Kismayo
12	Dahir Hussein Ali	TVET Assessor	MoE- Kismayo
13	Abdisamad Abass Dakane	TVET Director	MoE- Kismayo
14	Abdirahman Mustaf Ali	Trainee	Case Study - Kismayo
15	Mahad Abdille Cumar	Trainer	TVET Trainer– Kismayo Technical Institute
16	Ibrahim Hajir Macallin	Trainer	TVET Trainer – Kismayo Technical Institute
17	Mohamed Abdirahim Hayle	Manager	Hayle Barise Technical Development Centre.
18	Abdurrahman Aweis Ali	Trainer	Trainer - Hayle Barise Technical Development Centre
19	Abdiaziz Hassan Halane	TVET Assessor	MoE- Mogadishu
20	Dr. Ahmed Omar Alasso	SNU	Dean, Faculty of Engineering
21	Dr. Abdi Gaas	Director	Gollis University
22	Khaddar Ihsan	Gollis University	Dean, Electrical Engineering and Project Coordinator.
23	Ahmed Ibrahim	TVET Assessor	MoE- Havoyoco Somaliland
24	Ahmed Farax Caynan	Manager	Havoyoco TVET- Somaliland (former Director)
25	Ahmed Ismail Gedi	Trainer	Havoyoco Somaliland
26	Eng. Ahmed Mohamed	RDA	RDA - Hargeisa
27	Ahmed Abdi Shiekhdon	Trainer	Galkacyo TVET Centre- Puntland
28	Abdullahi Abshir Ali	Trainee	Case Study – Galkacyo
29	Abdiaziz Mursal Warsame	Som Power	Regional Manager
30	Mustafe Abdi Elmi,	Somtel	Company Director
31	Khadar Ahmed Abdi	PHA	Puntland Highway Authority Manager
32	Said Aden Ali	Kiberco	Manager- Kiberco Construction Company
33	Mohamud Abdi	Trainer	Galkacyo TVET - Puntland

34	Said Osman Jama	National Electric	Manager- Department of Electric and solar system
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#### Annex VI: List of Documents Reviewed

S/n	Name
1	Baseline Survey Report 2017
2	Mid Term Survey Report 2018
3	Project Proposal Narrative Report
4	Project Interim Narrative Reports (1, 2, 3, 4, 5, 6)
5	Monitoring Reports
6	Trainees Database
7	RDA Training Report
8	List of Assessors Trained
9	List of Apprenticeship (for each Region)
10	List of Certificate
11	Tools Distribution List (for Each Region)
12	Competency-Based Pedagogy Training Report
13	Steering Committee Meeting Minutes – Mogadishu
14	Log Frame Matrix
15	Gollis Electrical Engineering Curriculum
16	SNU Electrical Engineering Curriculum