

End of Project Evaluation Report on Automotive Training and Re-Skilling in the Post-COVID Economic Recovery for Vulnerable Youth and Women in South Africa

FINAL REPORT

October 2022

ACKNOWLEDGEMENTS

The Evaluation Team – Mr Jantus van der Linden, Mr Musawenkosi Senda and Ms Danielle Dass – express their appreciation and gratitude to all stakeholders who participated in this evaluation. The team acknowledges with thanks the leadership of the United Nations Development Programme (UNDP) South Africa – Dr Ayodele Odusola, Resident Representative, and Mr Gabriel Dava, Deputy Resident Representative – for their roles in overseeing the evaluation. Special thanks also go to the UNDP Project Team – Ms Phumla Hlati, Ms Izumi Ogawa, Mr Frederick Shikweni and Mr Sangsun Kwon – for their guidance throughout the evaluation, assistance in accessing the relevant project documents and identification of the relevant project stakeholders.

PROJECT AND EVALUATION INFORMATION DETAILS

Project Information		
Project Title	Automotive Training and Re-Skilling in the Post-COVID-19 Economic Recovery for Vulnerable Youth and Women in South Africa.	
Atlas ID	Award ID: 00126770 Output ID: 00125999	
Corporate outcome and output	<p>Strategic Plan Outcome 2: No one left behind, centering on equitable access to opportunities and a rights-based approach to human agency and human development.</p> <p>Strategic Plan Output 1.3: Access to basic services and financial and non-financial assets and services improved to support productive capacities for sustainable livelihoods and jobs to achieve prosperity.</p> <p>Strategic Plan Output E.1: People and institutions equipped with strengthened digital capabilities and opportunities to contribute to and benefit from inclusive digital societies.</p>	
Country	South Africa	
Region	Africa	
Date project document signed	7 July 2021	
Project dates	Start	Planned End
	March 2021	June 2022
Total budget	USD 1,180,000.00	
Project expenditure at the time of evaluation	USD 1,129,957.16 (provisional)	
Funding source	Government of Japan	
Implementing party	Department of Higher Education and Training, UNDP, Harambee Youth Employment Accelerator and the International Youth Foundation	

Evaluation Information		
Evaluation type	Project	
Final/midterm review/other	Final	
Period under evaluation	Start	End
	March 2021	June 2022
Evaluators	Katleho Agri Partners	
Evaluator e-mail address	jantus@katlehogroup.co.za	
Evaluation dates	Start	Completion
	01 July 2022	30 September 2022

TABLE OF CONTENTS

ACKNOWLEDGEMENTS	ii
PROJECT AND EVALUATION INFORMATION DETAILS	iii
TABLE OF CONTENTS	iv
LIST OF BOXES	vi
LIST OF FIGURES	vii
LIST OF TABLES.....	viii
LIST OF ACRONYMS AND ABBREVIATIONS	ix
EXECUTIVE SUMMARY	xi
1. INTRODUCTION.....	17
1.1 PURPOSE OF THE EVALUATION.....	17
1.2 PRIMARY INTENDED USERS	17
1.3 INTERVENTIONS BEING EVALUATED AND EVALUATION CRITERIA APPLIED 17	
1.4 STRUCTURE AND CONTENT OF THE REPORT.....	18
2. DESCRIPTION OF THE INTERVENTION BEING EVALUATED.....	20
2.1 PROJECT ACTIVITIES AND RESULTS	20
2.2 BACKGROUND TO AUTOMOTIVE TVET PROJECT	21
2.2.1 YOUTH UNEMPLOYMENT CHALLENGES	21
2.2.2 CHALLENGES ENCOUNTERED BY THE AUTOMOTIVE INDUSTRY TO RECRUIT SUITABLE EMPLOYEES	22
2.2.3 CHALLENGES EXPERIENCED BY TVET COLLEGES	23
2.2.4 POLICIES REVIEWED.....	24
2.3 AUTOMOTIVE PROJECT THEORY OF CHANGE	25
2.4 PROPOSED ILLUSTRATIVE THEORY OF CHANGE	28
2.5 KEY PROJECT PARTNERS.....	30
2.6 TOTAL PROJECT RESOURCES	30
3. EVALUATION SCOPE AND OBJECTIVES.....	32
3.1 EVALUATION SCOPE.....	32
3.2 EVALUATION OBJECTIVES	32
3.3 EVALUATION CRITERIA.....	33
3.4 EVALUATION QUESTIONS	33
3.5 CROSS-CUTTING ISSUES	36
3.6 EVALUATION MATRIX.....	36
3.7 PRIMARY USERS OF EVALUATION	37
4. EVALUATION APPROACH AND METHODOLOGY.....	38
4.1 EVALUATION APPROACH	38

4.2	DATA COLLECTION PROCEDURES AND INSTRUMENTS.....	39
4.3	DATA SOURCES.....	39
4.4	SAMPLE AND SAMPLING FRAME	40
4.5	STAKEHOLDER PARTICIPATION	43
4.6	DATA ANALYSIS.....	43
4.7	ETHICAL CONSIDERATIONS.....	44
4.8	MAJOR LIMITATIONS OF THE EVALUATION.....	44
4.9	PROJECT EVALUATION STEERING COMMITTEE	44
5.	FINDINGS	45
5.1	RELEVANCE OF THE PROJECT.....	45
5.2	COHERENCE OF THE PROJECT	47
5.3	EFFECTIVENESS OF THE PROJECT AND THE SUPPORT PROVIDED	48
5.4	EFFICIENCY OF THE PROJECT AND THE SUPPORT PROVIDED	54
5.5	IMPACT OF THE PROJECT.....	58
5.6	SUSTAINABILITY OF THE PROJECT.....	60
5.7	CROSS-CUTTING ISSUES	61
6.	CONCLUSIONS	63
7.	RECOMMENDATIONS	65
8.	LESSONS LEARNT	67
	REFERENCES	68
	ANNEXURES	69
	ANNEXURE 1: EVALUATION MATRIX.....	69
	ANNEXURE 2: DATA COLLECTION INSTRUMENTS	69
	ANNEXURE 3: LIST OF INDIVIDUALS OR GROUPS CONSULTED.....	69

LIST OF BOXES

Box 1: Relevance Criterion.....	34
Box 2: Coherence Criterion.....	34
Box 3: Effectiveness Criterion	35
Box 4: Efficiency Criterion	35
Box 5: Impact Criterion.....	35
Box 6: Sustainability Criterion	35

LIST OF FIGURES

Figure 1: Activities underpinning the Automotive TVET Project's TOC.....	26
Figure 2: Proposed Theory of Change	29
Figure 3: Key Automotive TVET Project activities	32
Figure 4: OECD/DAC evaluation criteria	33
Figure 5: Evaluation methodology	38
Figure 6: Picture gallery of some interventions.....	42
Figure 7: UNDP stakeholders.....	52
Figure 8: Female respondents' participation in the project evaluation	62

LIST OF TABLES

Table 1: Cooperation framework strategic priorities and outcomes relevant to this project..	25
Table 2: Definition of terms used in the results chain	25
Table 3: Project results framework	27
Table 4: Key project partners and their roles	30
Table 5: Project budget and expenditure	31
Table 6: Cross-cutting questions	36
Table 7: Primary users of the evaluation	37
Table 8: Data sources and collection methods	40
Table 9: Sampling and response rates	41
Table 10: Stakeholder participation and disaggregation of women participants	43
Table 11: Interventions vs needs (as identified by colleges and stakeholders)	46
Table 12: Automotive TVET Project targets and results	49
Table 13: Outputs converted into outcomes	53
Table 14: Project budget and actual expenditure	55
Table 15: Total project expenditure on equipment	55
Table 16: Evaluation conclusions	63
Table 17: Actionable recommendations with timelines	65

LIST OF ACRONYMS AND ABBREVIATIONS

4IR	Fourth Industrial Revolution
CNC	Computer Numerical Control
CPD	Country Programme Document
DAC	Development Assistance Committee
DHET	Department of Higher Education and Training
DPRU	Development Policy Research Unit
DWYPD	Department of Women, Youth and Persons with Disability
EE	Engineering Education
GDP	Gross Domestic Product
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit
HDI	Historically Disadvantaged Individuals
ICT	Information and Communications Technology
ILO	International Labour Organisation
IYDS	Integrated Youth Development Strategy
IYF	International Youth Foundation
JICA	Japan International Cooperation Agency
KPI	Key Performance Indicators
KZN	KwaZulu-Natal
merSETA	Manufacturing, Engineering and Related Services Sector Education and Training Authority
MSME	Micro, Small and Medium Enterprises
MTSF	Medium-Term Strategic Framework
NAACAM	National Association of Automotive Component and Allied Manufacturers
NAAMSA	National Association of Automobile Manufacturers of South Africa
NATED	National Accredited Technical Education
NCV	National Certificate Vocational
NDP	National Development Plan
NEET	Not in Employment, Education, or Training
NSDP	National Skills Development Plan
NYDA	National Youth Development Agency
NYP	National Youth Policy

OECD	Organisation for Economic Co-operation and Development
ODWPP	Operator Development and Work Placement Programme
PLC	Programmable Logic Controller
PSC	Project Steering Committee
PTS	Passport to Success
QCTO	Quality Council for Trades and Occupations
QLFS	Quarterly Labour Force Survey
SA	South Africa
SAAMP	South African Automotive Masterplan
SACE	South African Council for Educators
SDG	Sustainable Development Goal
SETA	Sector Education Training Authority
STEM	Science, Technology, Engineering and Mathematics
TMA	Toyota Manufacturing Academy
TOC	Theory of Change
TSAM	Toyota South Africa Motors
TSC	Tshwane South TVET College
TVET	Technical and Vocational Education and Training
UN	United Nations
UNDP	United Nations Development Programme
UNEG	United Nations Evaluation Guidelines
UNSDCF	United Nations Sustainable Development Cooperation Framework
WIL	Work-Integrated Learning
WRP	Work Readiness Programme

EXECUTIVE SUMMARY

The United Nations Development Programme (UNDP) South Africa in partnership with the Department of Higher Education and Training (DHET) implemented a project titled “Automotive Training and Re-Skilling in the Post-COVID Economic Recovery for Vulnerable Youth and Women in South Africa” with funding support from the Government of Japan. The project which had the automotive sector as its main focus was implemented in three Technical and Vocational Education and Training (TVET) colleges selected to pilot the project from March 2021 to June 2022. These three colleges were Coastal KZN TVET College in KwaZulu-Natal (Swinton Campus), Northlink College in the Western Cape (Bellville and Wingfield Campuses) and Tshwane South TVET College (TSC) in Gauteng (Centurion Campus).

Background: The COVID-19 pandemic amplified youth unemployment in South Africa. As the South African economy attempts to recover and rebuild the economy, there is an urgent need to equip youth and women with relevant job skills and to enhance the capacity of TVET colleges to equip learners with the skills needed in the ever-changing world of work. Given the automotive sector’s key role in re-industrialising the economy of South Africa and the need to provide this sector with the right type of skills, the project placed a specific focus on improving the TVET colleges’ provision of automotive-related skills. To adapt to a changed post-COVID-19 education and training landscape and learning environment, the ability and capacity of colleges to offer online and digital learning needed to be strengthened. To alleviate youth unemployment, a need was also identified to strengthen the links between TVET college graduates and private-sector employment opportunities.

Project objectives: Against the above-mentioned background, the overall project objective was to support TVET colleges to assist in South Africa’s economic recovery from the COVID-19 crisis and to equip youth and women with relevant job skills, including digital skills, that would help them secure suitable employment in the changing economy and work environment. The specific project objectives were:

- To increase the economic empowerment of vulnerable women and youth through the provision of skills relevant to the automotive industry
- To strengthen the capacity of TVET colleges to align with the post-COVID-19 economy and labour market needs, including flexible and digital learning mechanisms
- To strengthen the connection between graduates of TVET colleges and private sector employment opportunities, particularly with automotive companies, including Japanese companies, in South Africa.

Project description and interventions: The project and its interventions were based on the findings of a Rapid Needs Assessment conducted by the UNDP at the TVET colleges to identify their challenges and needs and to align those needs with the needs of the automotive industry and the growing demand for digitised vocational education and training in the post-COVID-19 landscape. The areas subsequently selected for support as part of the pilot project were:

- Provision of upgraded and new automotive training equipment aligned with automotive industry needs and/or information and communications technology (ICT) equipment and digital software that would enhance effective digital and online teaching and learning in the TVET colleges.
- Provision of upskilling training for TVET college students on both technical skills and work preparedness, as well as soft skills, to better adapt to the working environment and increase employability (especially in the post-COVID-19 context).
- Lecturer development in blended teaching methods and the use of digital software, as well as upskilling automotive lecturers on new developments in the automotive industry (such as hybrid and electric vehicles) and industry partnership development.

- Support for online platforms that link youth to the industry and employment opportunities. Support ranged from financial support to develop the National Association of Automotive Component and Allied Manufacturers (NAACAM) Yakh'iFuture (Build Your Future) as an automotive careers platform and the promotion and facilitation of access to the Harambee SAYouth platform that links students to suitable employment opportunities.

Evaluation purpose, scope and objectives: The evaluation covered the implementation period from March 2021 to June 2022. Five key project activities informed the focus of this evaluation: a Rapid Needs Assessment of TVET colleges, supply of automotive and ICT equipment, lecturer development (blended teaching methods, automotive technical development and industry partnership), upskilling of youth and two online platforms linking youth to industry support (SAYouth platform and Yakh'iFuture platform).

The three participating TVET colleges together with their beneficiaries (lecturers and learners) and youth trained in the Operator Development and Work Placement Programme (ODWPP) were some of the respondents of this study. The project stakeholders including implementing partners, industry partners, government departments and development partners – were the key informants of the evaluation. The evaluation was conducted over 40 days between 01 July 2022 and 30 September 2022 in accordance with the UNDP Evaluation Guidelines.

The objectives of the final evaluation of the project are to provide the project partners, including the UNDP, DHET and the Government of Japan, with an independent assessment of the implementation of the project and to determine:

- the extent to which the project has achieved its objectives and outcomes
- the challenges encountered in the project
- the good practices and lessons learnt
- the development of recommendations on how best to improve the project.

The evaluation criteria applied to this evaluation are the Organisation for Economic Co-operation and Development (OECD) Development Assistance Committee (DAC)'s evaluation criteria of relevance, coherence, effectiveness, efficiency, impact and sustainability (OECD-DAC, 2019). The OECD-DAC criteria were used to identify evaluation questions (Section 3.4), with each criterion providing a different perspective on the intervention, implementation and results.

The primary intended users of this evaluation report are those individuals or groups who are affected by the evaluation outcome, who are in a position to make decisions about the evaluation and who intend to use the evaluation process or findings to inform future decisions or actions. The primary users are the UNDP, DHET and the Government of Japan (the funder). The evaluation results will also inform the action of other partners, such as Harambee, the International Youth Foundation (IYF) and the three TVET colleges. The evaluation will help them understand how the interventions work in practice, their outcomes and impacts and how they can be improved or upscaled.

Methodology and approach: The approach to this evaluation was collaborative and participatory to ensure that the key inputs of all the key stakeholders were obtained and taken on board in the design, planning and undertaking of the assignment. Information and data were obtained through

- in-depth interviews with management staff of the participating TVET colleges
- in-depth interviews with and a survey among a sample of participating lecturers of the beneficiary TVET colleges
- discussions with and a survey among a sample of selected students who benefited from using the equipment and ICT tools provided by the project

- discussions with and an online survey among selected students who took part in the ODWPP
- interviews with key project stakeholders (implementing partners and the UNDP project management team).

An in-depth document review of project-related documentation and a literature review of the automotive and TVET system were also conducted. Research ethics were observed throughout the evaluation period and beyond.

Key evaluation findings: The evaluation focused on an assessment of the pilot project as a whole but also evaluated the individual project interventions and activities if and where such were relevant and appropriate.

Regarding the project as a whole, it was found that the project was undertaken successfully and that all project components and interventions were implemented within the project period. This is a major achievement considering the short project timeframe of one year and the additional complications caused by the COVID-19 lockdown with which the project had to contend (e.g., delays in the delivery and installation of the procured training equipment).

Other evaluation findings are organised and grouped in terms of the OECD-DAC evaluation criteria and respond to the evaluation questions that guided the evaluation.

(i) Relevance:

- The Automotive TVET Project is relevant to and aligned with the National Development Plan (NDP) (National Planning Commission, 2011), the UNDP Strategic Plan (UNDP, 2022) and the Sustainable Development Goals (SDGs) (United Nations, 2015) since it addresses the NDP priorities for the empowerment of vulnerable women and youth through their participation in improving their education and skills. The evaluation found that the project beneficiaries benefitting from equipment use and those that attended the ODWPP were all youth.
- The project was relevant in terms of contributing to gender equality and the empowerment of women as it set a target that 40% of project beneficiaries must be female (which considering the current male dominance of the automotive sector was both ambitious and a clear statement of intent). The target was achieved as 41% of learners registered on the ODWPP course were women.
- All stakeholders consulted declared that the project was very relevant since it was based upon and designed around the findings of the Rapid Needs Assessment undertaken by the UNDP to identify and respond to the unique needs of each TVET college.

(ii) Coherence:

- The project is in line with the South African government's strategy for fighting the triple challenges of poverty, unemployment and inequality in particularly vulnerable groups such as youth and women. It is therefore aligned with national policies such as the NDP, the National Youth Policy (NYP), the Integrated Youth Development Strategy, the National Skills Development Plan (NSDP) 2030, the National Youth Development Agency (NYDA) and the South African Automotive Masterplan (SAAMP) 2035 which aims to make South Africa's automotive industry more competitive.
- The project builds upon and strengthens other projects and initiatives such as the Japan International Cooperation Agency (JICA) Artisan Development Project (implemented at the Northlink College and the TSC) and the existing cooperation between Toyota South Africa Motors (TSAM) and Coastal KZN TVET College.

(iii) Effectiveness:

- The needs assessment undertaken as the point of departure for the design and detailed planning of the project is one of the main factors in successful project implementation within such a short period. This is deemed to be one of the strengths and best practices of the project and should be replicated in similar projects in future.
- The automotive and ICT equipment and tools procured and installed at the colleges were selected in terms of their priority needs. Management, lecturers and learners confirmed that the procured equipment was addressing the identified shortfalls and constraints and is thus considered a highly effective intervention.
- Lecturers rated the lecturer development interventions – aimed at enhancing their knowledge and skills to better align with the changing digital and automotive operating environments – as very effective.
- The high political support that the project enjoyed further contributed to its effectiveness. The national government took ownership of the project and public support (with the Minister of Education, the Japanese Ambassador and UNDP-SA representatives attending high-profile project functions) ensured that the project received very good media coverage and brought TVET colleges to the forefront of the public eye.

(iv) Efficiency:

- The fact that all the project interventions could be implemented in the very short timeframe of one year despite the negative impacts of the COVID-19 pandemic is a great compliment and speaks volumes about the efficiency and dedication of the various stakeholders responsible for project implementation.
- Collaborating with partners with expertise and existing initiatives, such as Harambee, IYF, and NAACAM, enhanced the efficiency of product development and service delivery significantly. Similarly, selecting strong and capable service providers and suppliers ensured that good quality products and services were delivered within relatively short periods. This approach should be replicated.
- The use of the UNDP to procure equipment and services on behalf of the three colleges enhanced the efficiency and cost-effectiveness of the procurement process significantly.
- The project used the allocated budget appropriately and efficiently and provided good value for money. There were no budget shortfalls and all the planned activities were carried out within budget.

(v) Impact:

- Through the procurement and installation of the specified range of ICT equipment, the capacity of the participating colleges to render more and better computer-based training has been established. This increased capacity should benefit these colleges and their learners for a period of at least five years (the estimated lifespan of the ICT equipment) and will help them to cope better with the changing training environment created by COVID-19 and the ever-evolving automotive technology.
- Blended learning is a pedagogical approach that will become a permanent feature of all teaching and learning going forward. The blended learning ability and capacity established at the three participating colleges enabled them to offer more and better blended and online training.
- The online aids provided via the LJ Create's Content System helped to teach complex electrical and mechanical concepts in an interactive way and at a fraction of the cost of purchasing machinery.
- The automotive equipment procured for two of the colleges together with the automotive development and industry partnership training provided to lecturers will help to better align the colleges with developments in the automotive industry and

help bridge the gap between the knowledge and skills historically provided by TVET college training and those demanded by the industry.

- This project allowed the marketing of the SAYouth employment website and other workplace readiness platforms such as Yakh'iFuture, including Passport to Success (PTS) to graduates and undergraduates. While it is still too early to fully evaluate the effectiveness of the two online platforms linking youth to industry, it has been reported that the SAYouth platform has already registered 12,230 students and that so far 694 have been assisted to find employment or income-generating opportunities.
- The focus that the project has placed on the importance of including soft skills in the learning programmes and curricula of all study fields (including automotive and other engineering-related studies) will make a big impact on developing more rounded graduates who not only possess technical skills but also have an array of other interpersonal skills needed to function successfully within a working environment.

Sustainability:

- The project and its various interventions were needs-based (needs identified, verified and prioritised during the Rapid Needs Assessment process) and, as such, it should make a significant contribution towards addressing identified shortfalls and constraints. This will serve as one of the most important reasons why the interventions should be sustainable over the medium to longer term and why the benefits of the project will continue for a sustained period.
- The project established a partnership model consisting of role-players from the government sector, the private sector, public TVET institutions and the donor agency. This partnership ensured that all the key interest groups needed for successful implementation and long-term sustainability had been incorporated and locked into this joint venture. It has set the basis for sustainability and the future continuation of the project with its benefits. Partnerships established with strong and experienced institutions to help implement some of the interventions (such as NAACAM on the Yakh'iFuture platform and with internationally based IYF on PTS) will further enhance and facilitate the sustainability of these initiatives.
- Partnerships with industry partners such as TSAM will ensure continued sustainability for the Coastal KZN TVET College and partnerships with other partners such as JICA in Northlink and TSC will also go a long way to ensure sustainability.
- All stakeholders consulted indicated a willingness to continue on subsequent phases of this project because they see the value of its potential impact on youth and women unemployment. Having been an integral part of this pilot, they are better prepared to deliver outputs in quicker timeframes.

Cross-cutting issues:

- The project benefited marginalised groups such as youth and women. All the beneficiaries who benefited from the use of workshop equipment were youth.
- More than 80% of the ODWPP's beneficiaries were from townships and/or rural locations and 41% of the beneficiaries who completed the programme were women.
- The project unfortunately did not include any disabled learners during the pilot.

Conclusions: Overall, it can be concluded that the project was implemented efficiently and effectively. The intended aim and objectives of increasing the economic empowerment of vulnerable women and youth, strengthening the capacity of TVET colleges to align with the post-COVID-19 economy and labour market needs and strengthening the connection between TVET college graduates and employment opportunities have been achieved within the timeframe. However, there were challenges, mainly linked to the timeframe for implementation

being too short, resulting in an insufficient time lag between lecturer training and learners not having had enough time to interact with the new equipment at the time of evaluation.

Recommendations:

- Against the consensus that this pilot project successfully addressed the critical shortfalls and constraints in the TVET sector (i.e., better alignment with a changing vocational training landscape, increasing demand for digital and blended learning approaches and supplying more appropriately trained graduates for the automotive sector), it is recommended that the project be expanded and rolled out to more TVET colleges. It is recommended that, under the guidance of the DHET, all the relevant stakeholders take appropriate action to ensure that soft skills be included in the curricula and training programmes offered by TVET colleges and that experts from the automotive industry be involved in the technical curriculum development component.
- It is strongly recommended that the central coordination and procurement approach (by the UNDP) followed in this project be continued in future projects.
- TVET college management must be part of the training so that they can fully support what happens in the classroom and in the industry too.
- Online learning and employment platforms must be actively marketed, maintained and regularly updated.
- TVET colleges must explore how to secure and repair expensive machinery so that theft and breakages are minimised and that machinery downtime does not affect teaching and learning. Long-term maintenance contracts for supplied machinery and equipment (beyond warranties) could be considered.
- As this end-of-project-evaluation was undertaken too soon after the project came to an end to assess the impact of the project, it is strongly recommended that a further follow-up impact assessment be undertaken (after approximately 12 months) with a focus on what the impact of the project has been.

Lessons learnt:

- The various project interventions proved to be a good mix of enhancing the training capacity of the TVET colleges by upgrading their facilities and upskilling their lecturers. This mix could be applied to similar interventions.
- This pilot project confirmed the demand for soft skills to be incorporated into the curriculum of all TVET college training programmes.
- The pilot project confirmed the benefits of selecting strong and capable service providers and suppliers to deliver the various project interventions in their respective fields of expertise.
- The central coordination and procurement of goods and services (by the UNDP) was widely applauded and proclaimed by stakeholders as one of the success factors of the project enhancing both cost-effectiveness and efficiency.
- The project confirmed the urgent and important need to assist TVET college learners, especially graduates, to prepare for and secure suitable employment.
- The implementation of a wider roll-out will benefit from the deployment of additional UNDP project support members as the current small team was stretched to capacity during the pilot.
- This evaluation was an end-of-project-evaluation undertaken directly after the project concluded and thus could not accurately assess the impact of the project. Should such an impact assessment be needed, a further follow-up impact evaluation will have to be undertaken after approximately 12 months.

1. INTRODUCTION

This section outlines the purpose of the evaluation, the primary audience and users, the interventions being evaluated and the structure and contents of the report.

1.1 PURPOSE OF THE EVALUATION

This is the end-of-project-evaluation of the project titled “Automotive Training and Re-Skilling in the Post-COVID Economic Recovery for Vulnerable Youth and Women in South Africa” (hereafter referred to as the Automotive TVET Project). The overall project objective was to support TVET colleges during South Africa’s economic recovery from the COVID-19 crisis and to equip youth and women with the relevant job skills in a post-COVID economy to help them secure suitable employment in the automotive industry.

The project was implemented from March 2021 to June 2022 with funding support from the Government of Japan. As it is an end-of-term evaluation, the evaluation was commissioned and commenced shortly after the project term ended. The end-term project evaluation must compile project close-out findings and results, draw lessons learnt and make recommendations for reporting and knowledge management purposes. It must provide the project partners including the United Nations Development Programme (UNDP), the Department of Higher Education and Training (DHET) and the Government of Japan with an independent assessment of the implementation of the project and determine:

- The extent to which the project achieved its objectives and outcomes
- The challenges encountered during the project
- The good practices and lessons learnt
- Recommendations on how best to improve the project and inform the basis for deepening and scaling the project to further advance TVET and youth development.

1.2 PRIMARY INTENDED USERS

The primary intended users of this evaluation report are those individuals or groups affected by the evaluation outcome, those who are in a position to make decisions about the evaluation and those who intend to use the evaluation process or findings to inform future decisions or actions. In this regard, primary users include the UNDP, DHET and the Government of Japan (the funder). The evaluation results will also be beneficial to and inform the actions of other partners such as Harambee, IYF and the three TVET colleges. The evaluation findings will help them understand how their interventions worked in practice, the outcomes and impacts thereof and how the interventions can be improved or upscaled.

1.3 INTERVENTIONS BEING EVALUATED AND EVALUATION CRITERIA APPLIED

The project document agreed upon between the DHET and UNDP set out the project description and interventions or outputs needed to better align TVET colleges with the needs of the automotive industry and the growing demand for digitised vocational education and training in the post-COVID-19 landscape. A Rapid Needs Assessment conducted by the

UNDP and the three participating TVET colleges further identified and refined their specific needs and project interventions. The areas identified for support as part of the pilot project, and which are being evaluated, were:

- Provision of upgraded and new automotive training equipment aligned with automotive industry needs and/or Information and Communications Technology (ICT) equipment and digital software that would enhance effective digital and online teaching and learning in TVET colleges.
- Provision of upskilling training for TVET college students on both technical skills and work preparedness as well as soft skills to better adapt to the working environment and increase employability (especially in the post-COVID-19 context).
- Lecturer development in blended teaching methods and the use of digital software, upskilling automotive lecturers on new developments in the automotive industry (such as hybrid and electric vehicles) and industry partnership development.
- Support for online platforms that link youth to the industry and employment opportunities. Support ranged from financial support to help to develop the National Association of Automotive Component and Allied Manufacturers' (NAACAM) Yakh'iFuture (Build Your Future) as an automotive careers platform and the promotion of, and access to, the Harambee SAYouth platform that links students to suitable employment opportunities.

The evaluation criteria applied to this evaluation are the Organisation for Economic Co-operation and Development (OECD) Development Assistance Committee (DAC)'s evaluation criteria of relevance, coherence, effectiveness, efficiency, impact, and sustainability (OECD-DAC, 2019). The OECD-DAC criteria were used to identify evaluation questions (Section 3.4), with each criterion providing a different perspective on the evaluation intervention, implementation and results.

1.4 STRUCTURE AND CONTENT OF THE REPORT

To facilitate the use of the information contained in the evaluation report, it has been organised and structured as follows:

- **Executive Summary** – summary of the entire evaluation report, focusing on the description of the intervention, the purpose and objective of the evaluation, the evaluation methodology, findings, conclusions, recommendations and lessons learnt.
- **Introduction** – provide background information on why the evaluation was conducted, identify the intervention being evaluated (Automotive TVET Project), description of the primary users and provide an outline of the entire evaluation report.
- **Description of the Intervention** – detailed description of the Automotive TVET Project, providing the landscape of and challenges in TVET and youth development in South Africa, identifying the key partners and describing the results framework and the project resources utilised.
- **Evaluation Scope and Objectives** – provide the scope, purpose and objectives of the end-of-project evaluation, introduction of the OECD-DAC evaluation criteria and the evaluation questions.
- **Evaluation Approach and Methodology** – detailed description of methodological approaches to data collection, analysis, ethical considerations and limitations of the selected methodology.
- **Findings** – presentation of evaluation findings based on the OECD-DAC criteria.
- **Conclusions** – presentation of conclusions that can be drawn from the key findings.

- **Recommendations** – recommendations that are practical and actionable within specific timeframes for the primary users of this evaluation report.
- **Lessons Learnt** – discussion of new knowledge gained from the evaluation. This knowledge can be applied to other contexts or can be touted as best practices.

2. DESCRIPTION OF THE INTERVENTION BEING EVALUATED

The UNDP South Africa in partnership with the DHET implemented the Automotive TVET Project with funding support from the Government of Japan. The project was implemented from March 2021 and came to an end in June 2022.

The overall objective was to support TVET colleges during South Africa's economic recovery from the COVID-19 crisis and to equip youth and women with the relevant job skills in a post-COVID economy to help them secure suitable employment. Specific project objectives were:

- To increase the economic empowerment of vulnerable women and youth through the provision of skills relevant to the automotive industry
- To strengthen the capacity of TVET colleges to align with the post-COVID-19 economy and labour market needs including flexible and digital learning mechanisms
- To strengthen the connection between graduates and TVET colleges with private sector employment opportunities, particularly with automotive companies (including Japanese companies) in South Africa.

While the project focused on the employment and skills requirements of the automotive sector, it was realised that in addition to technical skills, learners also had a big need for digital and soft skills to enhance their employability. The project concept was implemented on a 'piloting' basis in the following three TVET colleges:

- Coastal KZN TVET College in KwaZulu-Natal (Swinton Campus)
- Northlink College in the Western Cape (Bellville and Wingfield Campuses)
- Tshwane South TVET College in Gauteng (Centurion Campus).

2.1 PROJECT ACTIVITIES AND RESULTS

Key project activities and achievements include the following:

- A Rapid Needs Assessment of TVET colleges was conducted to identify their challenges and needs in terms of alignment with the automotive industry's needs, the digitisation of education post-COVID-19 and recommended areas of support.
- Automotive and ICT equipment and tools valued at R6.5 million were procured for the three TVET colleges to enhance their training capacity in support of youth employability. Comprehensively, this includes:
 - ICT equipment – 100 laptops, 6 projectors, 6 interactive whiteboards, 10 desktops, 2 printers and other peripherals
 - Mechanical, electrical, and electronic workshop equipment
 - Automotive components
 - Digital content via LJ Create's Content System and material for soft skills development.
- A total of 59 TVET college lecturers and staff members were capacitated through two training courses in blended teaching and learning techniques and automotive technical development and industry partnerships.
- A total of 64 youth trained in KZN through accredited skill training for entry-level manufacturing operators. Four of them have been on work placement to date. Others are actively seeking job opportunities.

- Two online platforms linking youth to the industry have been supported. The first is the SAYouth platform (<https://sayouth.mobi/>) – 12,230 students have been registered so far and 694 have found employment or income-generating opportunities. The second is the automotive online career experience platform, Yakh'iFuture (Build Your Future), launched in July 2022.

2.2 BACKGROUND TO AUTOMOTIVE TVET PROJECT

The Automotive TVET Project was established as emergency relief to respond to challenges created and/or exacerbated by the COVID-19 pandemic. The importance and demand for the project are evident from the following four perspectives which created the project landscape:

- The youth unemployment challenge experienced in South Africa
- Difficulties experienced by the automotive industry to recruit and employ graduates with the right skills, attributes and attitudes needed for successful employment – demand side
- The constraints of TVET colleges to offer industry-aligned training programmes (particularly in the automotive industry) and to adopt digital online learning approaches and methodologies towards being responsive to the 'new normal' post-COVID-19 learning environment – supply side
- Policies and strategies at the national level that promote youth development, thus, creating an enabling environment.

2.2.1 YOUTH UNEMPLOYMENT CHALLENGES

South Africa is facing a serious youth unemployment challenge. According to the Quarterly Labour Force Survey (QLFS), for the first quarter of 2022, the unemployment rate for youth aged 15–24 years was close to 64% (the so-called Not in Education, Employment and Training (NEET) rate which includes those who are not employed or enrolled in education and training). The NEET rate for those aged 25–34 years currently stands at 42% while the official national unemployment rate stands at 34,5%. Approximately 8 million young people find themselves in this precarious position. It is thus evident that youth in South Africa continue to be disadvantaged in the labour market with an unemployment rate higher than the national average. This scourge was amplified by the COVID-19 pandemic which exacerbated unemployment and further interrupted learning with schools, colleges and universities being closed in an attempt to curb the spread of the virus.

Research undertaken to identify the root causes of youth unemployment in South Africa (Jubane, 2021) indicates the poor education system resulting in a skills mismatch as one of the main causes.

As South Africa seeks to rebuild the economy from the COVID-19 devastation, there is an urgent need to equip youth and women with relevant job skills required in the post-COVID-19 economy. The Fourth Industrial Revolution (4IR) has further created a high demand for skilled workers. However, the cohort of young people leaving the education and training system still largely lacks such skills. The skills mismatch means that the skills taught at colleges and universities are misaligned with the skill sets demanded by employers.

It is against this backdrop that the Automotive TVET Project was established to pilot and test a range of initiatives and interventions aimed at addressing some of the causes of the skills mismatch (especially within the automotive industry) and to assist graduates from TVET

colleges to find suitable employment as a means of addressing the youth unemployment problem.

2.2.2 CHALLENGES ENCOUNTERED BY THE AUTOMOTIVE INDUSTRY TO RECRUIT SUITABLE EMPLOYEES

The automotive industry is a key economic sector in South Africa worthy of receiving priority attention and focus. The sector contributes around 6.4% to the country's GDP, accounts for close to 30% of the country's manufacturing output and contributes 14.3% to South Africa's total exports [Manufacturing, Engineering and Related Services Sector Education and Training Authority (merSETA), 2020]. The sector is also central to re-industrialising the economy of South Africa as the economy recovers from the COVID-19 crisis.

COVID-19 has had a devastating effect and impact on the entire automotive value chain in South Africa. This is evident in the drop in new car sales which decreased by almost 65% from the second quarter of 2019 to the second quarter of 2020 [National Association of Automobile Manufacturers of South Africa (NAAMSA), 2020]. While there were predictions that the sector would see recovery from the second half of 2020, the overall view was that it would take a year or more to see some recovery.

In addition to the COVID-19 impact, the Fourth Industrial Revolution impacts all economies and has a particularly prominent impact on the automotive manufacturing sector. The automotive industry is evolving rapidly and the landscape has seen an explosion of, among others, digitalisation, robotics, advanced diagnostics, software mapping and key coding and hybrid, electric and self-driving vehicles. All of these technological changes influence not only the types of jobs that will be available in the future but also how existing jobs function and the tasks and activities that employees will be required to undertake.

NAACAM member companies, for instance, predict that the adoption of advanced manufacturing and production methodologies is likely to demand that workers on the shopfloor undertake more technically complex activities. It was further identified that shop-floor staff will be expected to be proficient in a 'basket of skills' and no longer specialise in discreet manufacturing skills. The importance of developing interdisciplinary and 'soft skills' was also highlighted.

While automation will displace workers and/or transform jobs in the automotive industry, technological advances will also create new opportunities for enterprises and workers, particularly high-tech skilled workers. In this regard, automation and robotisation will increase the demand for technical skills, particularly in occupations that require workers to have qualifications in Science, Technology, Engineering and Mathematics (STEM) fields. In addition to STEM skills, specific technical skills will be required to deploy, operate and maintain new digital technologies (International Labour Organisation (ILO), 2018). The broader technology roadmap for the automotive industry to 2035 reveals that the average ICT intensity of jobs has increased by more than 26% in the past decade and that the auto industry will have to place considerably more emphasis on digital fluency and ICT skills.

Given the deep transformation that the sector currently faces, the industry will need to place even more emphasis on attracting, recruiting, training, re-skilling and upskilling women and youth. It will need to invest in the capabilities of a workforce that will master new technologies and possess the right skill set to drive innovation, productivity and sustainability in the future (ILO, 2021). Organisations will need re-skilling for both technical skills and human skills. Future jobs will require a larger focus on human skills such as emotional intelligence, critical thinking, innovation, empathy, ethics, leadership and initiative that enable value-creating activities for organisations. Historically these soft skills were largely excluded from an engineering education (EE) and a paradigm shift is needed in adding soft skills to EE curricula.

Within the South African context, the TVET colleges have a particularly important role to play in this regard. Unfortunately, various studies and consultations revealed that the post-school education and training system is failing to prepare the workforce for the new world of work. This project was subsequently designed to specifically address some of the shortfalls and constraints identified in the participating TVET colleges (e.g., addressing equipment and lecturer knowledge and competency constraints).

2.2.3 CHALLENGES EXPERIENCED BY TVET COLLEGES

The challenges experienced by TVET colleges centre around both their throughput and the quality and relevance of their output. Regarding throughput, an analysis of students enrolled at public TVET colleges for NC4 revealed that for the 2016 cohort, less than 10% of the enrolled students completed the programme by 2018. This represents a dropout or repeat rate of close to 90%. This throughput is even worse in technical studies.

In a recent study for merSETA, Barnes (2021) concluded that there are major industry concerns with the quality of the artisan skills development process in South Africa. The quality of South African TVET colleges is generally deemed poor, with extensive company-specific training viewed as essential to remedying and compensating for the poor training received. This is a major frustration among industry stakeholders, indicating that company-specific training should be building on base artisan skills and advancing these skills in company-specific technologies. Instead, company-specific training is seen as essential to ensuring that the artisans can operate at even the most basic levels required. Urban-Econ: Nikela (2021) identified the following as some of the reasons given for the poor performance of students and the skills mismatch:

- Curricula are outdated and not developed with industry involvement, resulting in non-aligned training programmes.
- Currently, most TVET colleges do not have work-integrated learning (WIL) approach with structured integrated theory and practical and workplace exposure.
- Curricula lack much-needed soft skills to prepare learners for the world of work. International research revealed soft skills such as creative thinking, analytical thinking, communication skills and teamwork as critical to working in a 4IR environment.
- Lecturers are not equipped nor attuned to industry developments and requirements. Many lack experience in the industry, do not keep abreast with new developments in the industry and cannot link theory to practice.
- Workshop equipment is lacking and outdated to meet new developments in the automotive industry (lack of modern digital equipment, programmable computer numerical control (CNC) machines, digital vehicle diagnostic equipment, programmable logic controllers (PLCs) and robotics).

A further serious challenge is the ICT gaps experienced by TVET colleges that have an impact at various levels. ICT gaps impact the availability of and the ability to utilise ICT-driven equipment such as digital vehicle diagnostic equipment, PLCs and robotics). At an operational level, COVID-19 identified and emphasised the lack of ICT infrastructure and ICT skills related to teaching and learning with the colleges not having the means to engage effectively in digital learning or remote and blended learning. Lecturers are also not ICT-skilled, limiting them not only in instruction but also in setting up digital and remote learning sessions. Students are similarly hampered in that they do not have the equipment/tools (such as data, laptops and tablets) to engage with digital learning.

A further critical challenge is the limited linkages that exist between the automotive industry and colleges which negatively affect the placement of graduates. This problem already starts with insufficient workplace opportunities where learners can obtain practical work experience

as part of their learning programmes. It further manifests itself in graduates leaving colleges without finding suitable employment and joining the ranks of unemployed graduates. A need exists to facilitate and assist learners and graduates with available employment opportunities (e.g., via employment websites and platforms such as SAYouth.Mobi), to connect employers with talented work seekers (e.g., via Harambee and the Yakh'iFuture platform) and to help prepare graduates for the challenges of the world of work and job interviews.

2.2.4 POLICIES REVIEWED

2.2.4.1 National Development Plan

The National Development Plan (NDP) aims to eliminate poverty and reduce inequality by 2030. Chapter 9 of the NDP prioritises improving the quality of education, training and innovation. Part of the actions to achieve this is by “building the capacity of TVET institutions to become a preferred institution for vocational education and training”. The NDP also focuses on women and youth and has cross-cutting themes around the impact of gender and improving life chances for youth: “The key determinant of success is whether a country can harness the advantage of having a large number of young people who are able and willing to work.”

2.2.4.2 UNDP South Africa Country Programme Document (2020–2025)

The thrust and anchor of the UNDP South Africa's Country Programme Document 2020–2025 (UNDP, 2020) are geared towards youth and women's empowerment through employment creation opportunities as the bedrock of reducing poverty and inequality in South Africa. The indicative country programme outputs relevant to this evaluation are:

- Outcome 1: Advance poverty eradication in all its forms and dimensions.
- Output 1.3. Institutional capacities at national and sub-national levels improved to plan innovative delivery and accelerate the redress of multi-dimensional poverty, unemployment and inequalities.
 - Indicator 1.3.2: The number of networking, exchanges and platforms between private and public sectors on business development to address inefficient labour market information systems, including digital skills created.
- Output 1.4: Comprehensive business, youth entrepreneurship and supplier development programme initiated for rural and off-farm enterprises with the potential to enhance the quality of business development support for micro, small and medium enterprises (MSMEs) and value chains. One of the indicators (I:1.4.3). is “the number of youth including those in the youth networks provided with digital skills to improve their employability, disaggregated by gender, geographic areas”.

2.2.4.3 Sustainable Development Goals

The aim of the 17 Sustainable Development Goals (SDGs) 2030 is to end all forms of poverty, fight inequalities and tackle climate change while ensuring that no one is left behind (United Nations, 2015). The Automotive TVET Project is also expected to contribute directly to the achievement of the following SDGs: social goals (1, 4 and 5), economic goals (8 and 10) and partnerships for the goals (17).

2.2.4.4 United Nations Sustainable Development Cooperation Framework South Africa 2020-2025

The United Nations Sustainable Development Cooperation Framework (UNSDCF) South Africa 2020-2025 (United Nations, 2022) is aligned with the NDP. With this cooperation framework, the UN in South Africa brings together the expertise and resources of 15 UN agencies to advance the national implementation of the SDGs. The four strategic priorities of the cooperation framework are as follows and are further explained in Table 1:

- Inclusive, just and sustainable economic growth
- Human capital and social transformation
- Effective, efficient and transformative governance
- Climate resilience and sustainably managed natural resources.

Table 1: Cooperation framework strategic priorities and outcomes relevant to this project

Strategic priority	Outcome	National priorities
Inclusive, just and sustainable economic growth	1.1 By 2023, all people in South Africa, particularly women, youth and other marginalised groups, benefit justly from decent work and other social and economic opportunities.	<ul style="list-style-type: none"> ▪ NDP: Chapter 3: Economy and Employment ▪ MTSF: Priority 2: Economic transformation and job creation
	1.2 By 2023, South Africa's primary, secondary and tertiary sectors are more productive, diversified, sustainable and employment-intensive.	
Human capital and social transformation	2.3 By 2025, all children and young people in South Africa have equitable access to quality education relevant to a changing society.	<ul style="list-style-type: none"> ▪ NDP: Improving education and training ▪ MTSF: Priority 3 Education

These identified outcomes are further supported by the NDP outcomes and the Medium-Term Strategic Framework (MTSF) 2019 -2024 priorities.

2.3 AUTOMOTIVE PROJECT THEORY OF CHANGE

The Theory of Change (TOC) is a framework that describes how a particular intervention leads to desired results or change. It provides a logical model of how the Automotive TVET Project objectives will be achieved and are presented in graphical format by capturing all the essential steps involved in implementation. TOC comprises five core components: the impact, outcomes, outputs, activities and inputs. TOC connects resources (inputs) to ultimately the objectives (goals) of the Automotive TVET Project. Table 2 defines the key terms used in the results chain of TOC.

Table 2: Definition of terms used in the results chain

Component	Description
Inputs	What we use to do the work. Resources that contribute to the production and delivery of outputs.

Activities	What we do. Processes or actions that use a range of inputs to produce desired output and ultimately outcomes.
Outputs	What we produce or deliver. The final products or goods and services.
Outcomes	What we wish to achieve. Medium- and long-term results for specific beneficiaries that are the consequence of achieving specific outputs.
Impact	What we aim to change. The developmental results of achieving specific outcomes.

The project document has an implied but non-illustrative and detailed TOC. This TOC for the project is underpinned by the three activities as per Figure 1.

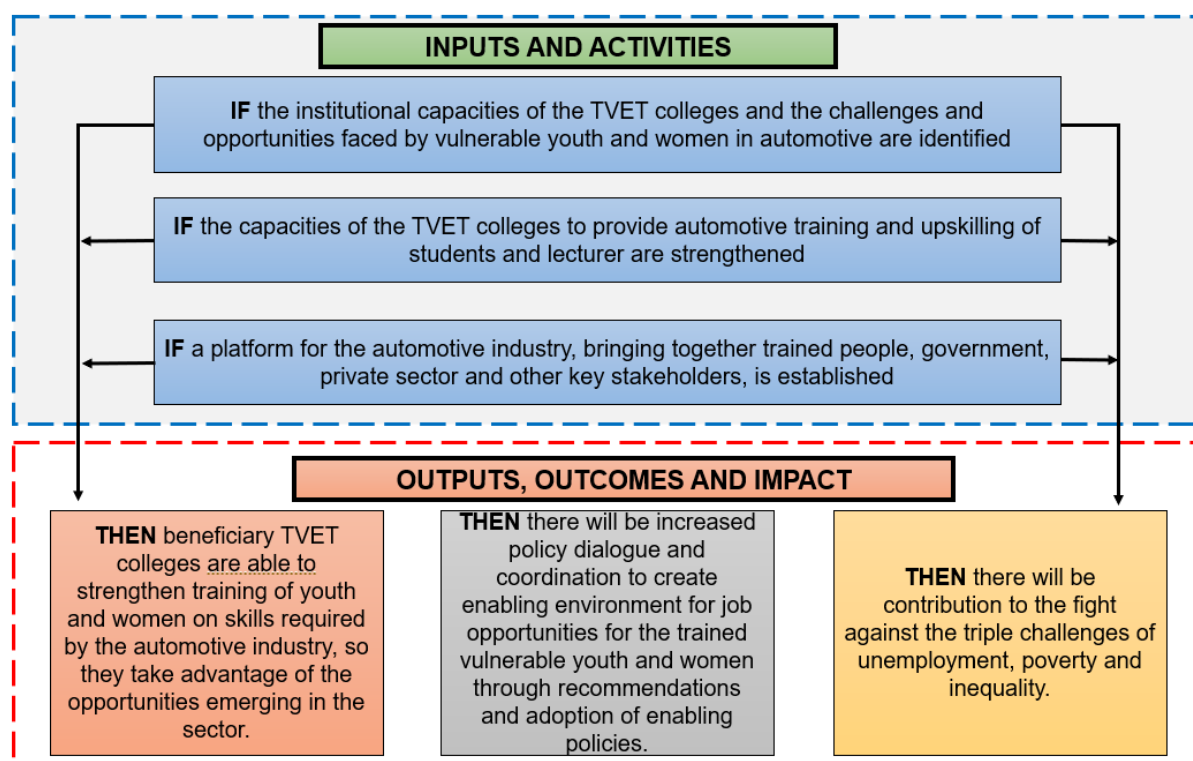


Figure 1: Activities underpinning the Automotive TVET Project's TOC

Based on the results framework outlined in the project document, the activities that underpin TOC – the baseline, indicators, targets and outcomes that signal the achievement of any action along the results chain pathway – have been identified as per the reformulated Project Results Framework (Table 3). The reformulated results framework allows for the linkage with the proposed TOC (Figure 2 in section 2.4).

Table 3: Project results framework

Results chain	Description	Output	Indicator	Baseline	Target
Inputs	Financial resources	Expenditure reports	Amount of the budget spent at the end of the project period	0	US\$1.18m
	Human resources	Project Management Team	Number of UNDP project management team members	0	4
Activities	Conduct Rapid Needs Assessment	Rapid Needs Assessment Report produced	Number of rapid assessments of vocational skills gaps and needs in the automotive sector and on TVET institution challenges and opportunities produced	0	2
	Provide automotive and ICT equipment procurement	Equipment delivered according to Rapid Needs Assessment	Budget used in procurement of automotive and ICT equipment	0	US\$315,000.00
	Conduct lecturer development: blended teaching methods and automotive technical development	Lecturers trained in blended teaching methods	Number of Lecturers trained in blending teaching methods and automotive technical development and industry partnerships	0	24
		Lecturers trained in automotive technical development and industry partnerships		0	30
	Provide learners with new automotive and ICT equipment	TVET colleges supported	Number of TVET colleges supported	0	2
		Youth using new automotive and ICT equipment	Number of youth (target 40% women) benefitting from the provision of equipment including online learning and/or upgraded automotive training	0	200
	Upskilling of youth	Youth and women upskilled in automotive courses	Number of youths benefiting from upskilling courses (technical) entry-level manufacturing operators Number of youths benefiting from	0	300

Results chain	Description	Output	Indicator	Baseline	Target
			upskilling courses – TSAM		
	Online platform onboarding of youth to access employment opportunities	Online platforms supported	Number of new platforms for engaging youth entrepreneurs, policymakers, the private sector, academic institutions and relevant stakeholders to discuss opportunities and barriers for youth entrepreneurship established	0	1
	Conduct workshop on lessons learnt in vocational training and upskilling among vulnerable women and youth among stakeholders, including relevant policymakers	Workshop with project partners and stakeholders held in vocational training and upskilling of vulnerable women and youth	Number of workshops conducted by the UNDP	0	2

2.4 PROPOSED ILLUSTRATIVE THEORY OF CHANGE

In the absence of an illustrated TOC, the evaluators propose the TOC depicted in Figure 2.

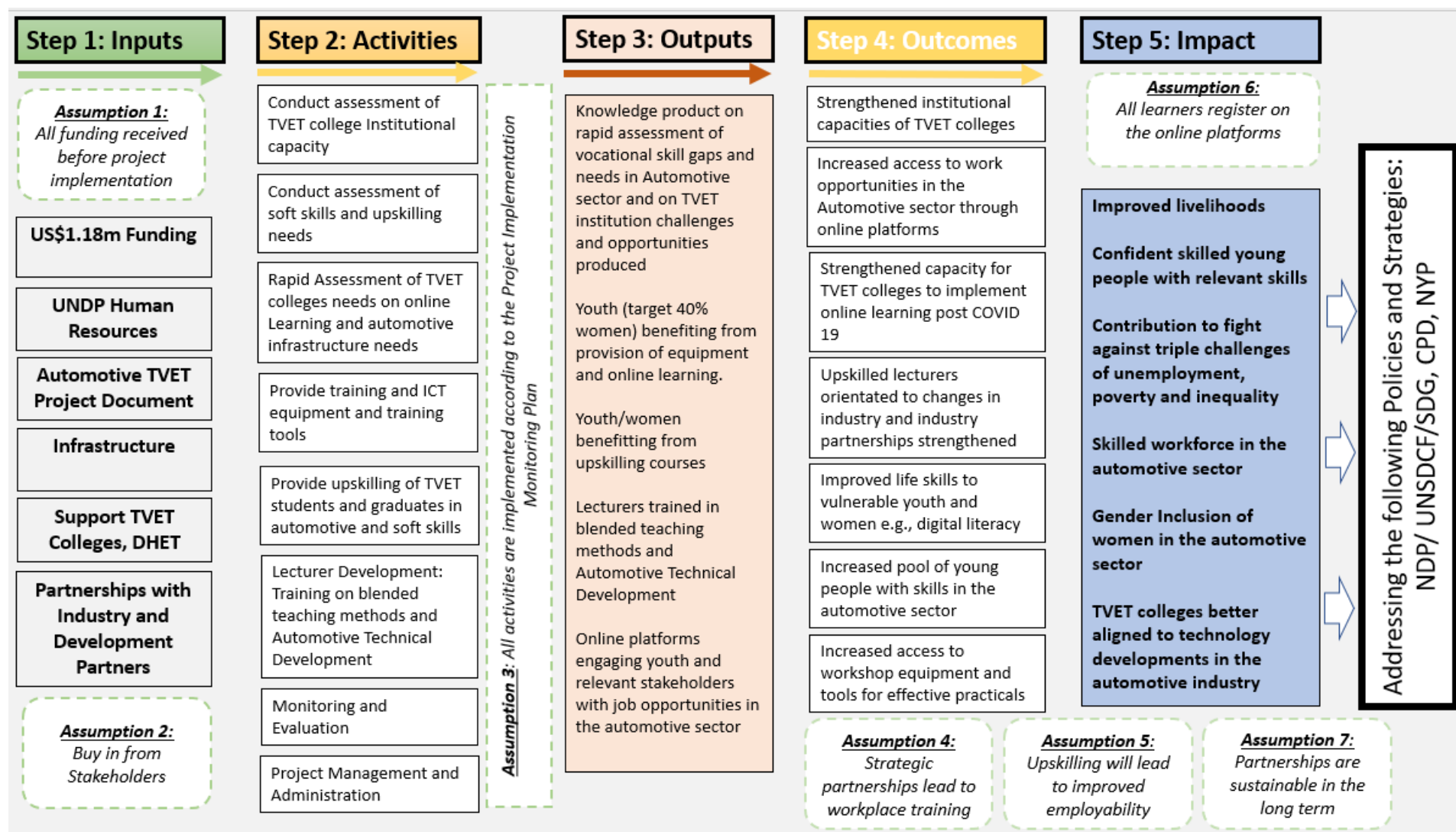


Figure 2: Proposed Theory of Change

2.5 KEY PROJECT PARTNERS

The key project partner roles in the implementation of the Automotive TVET Project are described in Table 4.

Table 4: Key project partners and their roles

Project partner	Role in the implementation
Department of Higher Education and Training (DHET)	The government department has the mandate to improve vocational training in TVET colleges. In the project, the role of DHET was to coordinate and provide inputs in the assessments of the three participating colleges.
TVET colleges – Coastal KZN, Northlink and TSC	The three colleges were part of the main project beneficiaries in terms of capacity development, equipment resources and the capacity of their lecturers. These TVET colleges were the focal point of the project.
Harambee	Implementing partner to the UNDP; its role was to oversee both the Operator Development and Workplace Programme (ODWPP) as well as the SAYouth campaign.
International Youth Foundation (IYF)	Implementing partner – IYF developed the Yakh'iFuture platform (as part of their involvement in the NAACAM High Gear Initiative). They also made the Passport to Success learning material available for use by the project.
Toyota South Africa Motors (TSAM)	Toyota is an industry partner of the UNDP being a key player in the automotive sector in South Africa. Toyota helped set up a workshop and equip it with some refurbished and new equipment in Coastal KZN TVET College. Toyota has also enrolled 24 learners who are doing their theory at Coastal KZN.
National Association of Automotive Component and Allied Manufacturers (NAACAM)	Industry partner to the UNDP. Supervised the development and establishment of the Yakh'iFuture Career Guidance platform. For this purpose, funding was made available via the UNDP project for the design and development of the platform while NAACAM contributed its own funds (and funds received from donor organisations) to cover other operational and training costs related to getting the platform operational. NAACAM did not develop the platform themselves but contracted the IYF. Also engaged in the SAYouth promotion with some of their members registering on SAYouth and listing their vacancies.
Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ)	Developmental partner. Engaged with the project in a supportive capacity since they are working in the same spaces as the project, such as digital skills and the Presidential Youth Employment Intervention.
Japan International Cooperation Agency (JICA)	JICA's role as a development project implementation body for the Japanese government had an observer role and status on the project because JICA has another TVET college capacity-building project with the TSC and the Northlink TVET College.
United Nations Development Programme (UNDP)	UNDP managed the entire project and rendered project management and support services from the project concept and inception phase through successful implementation to the monitoring and evaluation services at the end-of-contract period.

2.6 TOTAL PROJECT RESOURCES

The total approved amount for the project is US\$1,180,000.00. This figure includes the 1% coordination levy of US\$11,683.00. Table 5 displays the project budget and expenditure.

Table 5: Project budget and expenditure

Budget activity	Budget (US\$)	Expenditure including commitments (US\$)
Output 1: Needs assessment of the three colleges	40,000.00	33,446.95
Output 2: (a) Enhanced TVET college institutional capacity (b) Upskilled youth and women	515,794.00	610,577.86
Output 3: (a) Supported digital platforms to link to the industry (b) Lecturer training and close-out workshop	303,000.00	224,226.40
Direct project costs	222,981.00	181,110.21
General management support	86,542.00	80,595.74
Total	1,168,317.00	1,129,957.16

The above financial status is as of the end of September 2022. The coordinating levy is not included in the above table.

3. EVALUATION SCOPE AND OBJECTIVES

3.1 EVALUATION SCOPE

The evaluation covered the implementation period from March 2021 to June 2022. The five key project activities (Figure 3) formed the main part of this evaluation. The three TVET colleges that are the project beneficiaries of the project are:

- Coastal KZN TVET College (KwaZulu-Natal), Swinton Campus
- Northlink College (Western Cape), Bellville and Wingfield Campuses
- Tshwane South TVET College (Gauteng), Centurion Campus

These three TVET colleges, together with their beneficiaries (lecturers and learners) and youth trained in the ODWPP formed part of the respondents of this study. The project stakeholders which included– implementing partners, industry partners, government departments and development partners – are the key informants of the evaluation. The evaluation was conducted over 40 days between 01 July 2022 and 30 September 2022 per the UNDP Evaluation Guidelines.

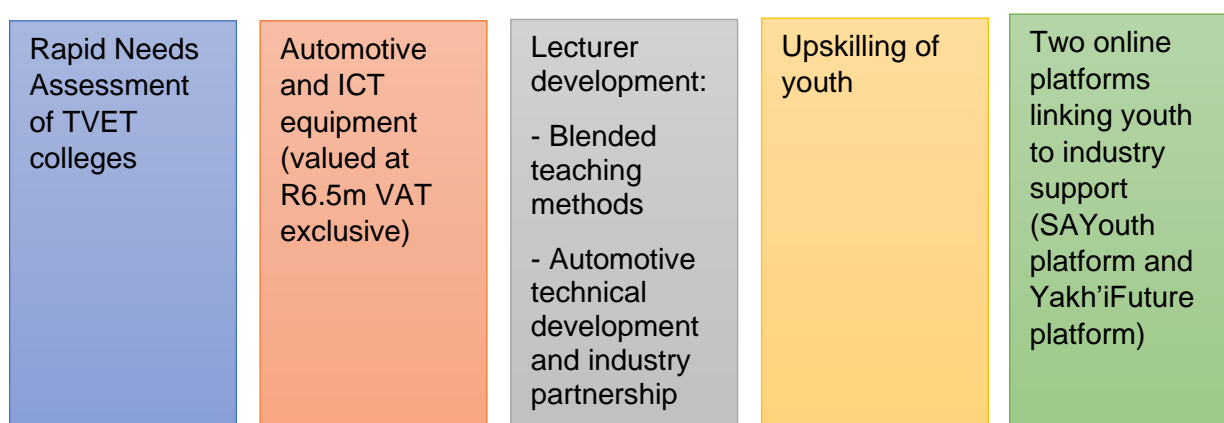


Figure 3: Key Automotive TVET Project activities

3.2 EVALUATION OBJECTIVES

The objectives of the final evaluation of the Automotive TVET Project are to provide the project partners – UNDP, DHET and the Government of Japan – with an independent assessment of the implementation of the project and to determine:

- the extent to which the project achieved its objectives and outcomes
- the challenges encountered during the project
- the good practices and lessons learnt
- recommendations on how best to improve the project.

The purpose of this end-term project evaluation is to compile project close-out findings and results, draw lessons learnt and make recommendations for reporting and knowledge management purposes. It is also to inform the basis for deepening and scaling the project to further improve TVET colleges and advance youth development.

3.3 EVALUATION CRITERIA

Evaluation criteria are the standards by which the accomplishments of technical and operational effectiveness or suitability characteristics are assessed. These criteria provide the normative framework used to determine the merit or worth of an intervention (e.g., programme, project or activity). These criteria serve as the basis upon which evaluative judgements are made. The OECD-DAC evaluation criteria of relevance, coherence, effectiveness, efficiency, impact and sustainability were applied to this Automotive TVET Project evaluation (OECD-DAC, 2019).



Figure 4: OECD/DAC evaluation criteria (OECD-DAC, 2019)

The OECD/DAC criteria are used to identify the evaluation questions (Section 3.4), with each criterion providing a different perspective on the evaluation intervention, implementation and results.

3.4 EVALUATION QUESTIONS

The evaluation questions are guided by the evaluation objectives and are in line with the OECD/DAC evaluation criteria of relevance, coherence, effectiveness, efficiency, impact and sustainability. The evaluation questions further respond to the South African government's development priorities and its aspirations for women and youth.

The evaluation questions were specific to the different stakeholders identified for consultation:

- Project and programme managers and staff of the UNDP
- Government department (DHET)

- Project beneficiaries (Coastal KZN TVET College, Northlink College, TSC represented by management, participating lecturers, students and youth trained through the project-related skills training)
- Implementing partners (Harambee and IYF)
- Industry partners (TSAM, NAACAM)
- Development partners (JICA, GIZ)
- Urban-Econ: Nikela who produced the Rapid Needs Assessment, the procurement of the equipment and the lecturer training in Automotive Technical Development and Industry Partnerships
- Eiffel Corp implemented lecturer training in blended teaching
- Suppliers (equipment suppliers – Sangari as a supplier of the LJ Create's Content System, SK Tooling & Machinery and Amtec Techniquip)
- Automotive Learning Academy, a sub-contractor of Harambee, were also interviewed

The key evaluation questions are provided in Box 1 to Box 6. It is worth noting that the key evaluation questions were further disaggregated in the data collection instruments (Annexure 2) and were not limited to the generic evaluation questions stated in the boxes. The findings (Section 5) of the evaluation are structured according to these criteria.

Box 1: Relevance Criterion

Relevance refers to the extent to which the project is suited to and consistent with the target beneficiaries' priorities and needs, as well as the development objectives and opportunities of the TVET sector and the automotive industry. The following evaluation questions will apply:

- To what extent was the project in line with national development priorities, country programme outputs and outcomes, the UNDP Strategic Plan and the SDGs?
- To what extent does the project contribute to the TOC for the Automotive TVET Project?
- To what extent have stakeholders been involved in the planning and implementation of the project?
- Are the project's strategy and objectives appropriate for achieving the planned results?

Box 2: Coherence Criterion

How well does the intervention fit? The compatibility of the intervention with other interventions in a country, sector or institution. The extent to which other interventions (particularly policies) support or undermine the intervention and vice versa. The focus is also on partnerships and linkages and understanding interventions within broader systems. Both relevance and coherence consider how the intervention aligns with the context but they do so from different perspectives:

- To what extent is the project in line with government policies and strategies on youth skill development and employment and automotive sector development?
- To what extent has the project been able to build on other initiatives and create synergies with other projects, partners and programmes?

Box 3: Effectiveness Criterion

Effectiveness measures the extent to which the project's planned objectives were achieved. The project's performance is measured by comparing the actuals against the intended targets and disaggregated according to beneficiary information:

- To what extent has progress been made towards outcome achievement?
- What factors have contributed to achieving, or not achieving, the intended country programme outputs and outcomes?
- To what extent has the project partnership strategy been appropriate and effective?
- What factors contributed to effectiveness or ineffectiveness?
- Which programme areas are the most relevant and strategic for the government of South Africa and the UNDP to upscale or consider going forward?
- Have outputs been transformed into outcomes?

Box 4: Efficiency Criterion

Efficiency measures how economically resources/inputs (funds, expertise, time) are converted into qualitative and quantitative outputs. It seeks to ascertain whether the project has used the most cost-effective resources possible to achieve optimum results:

- To what extent was the project management structure as outlined in the project document efficient in generating the expected results?
- To what extent have the project implementation strategy and execution been efficient and cost-effective?
- To what extent has there been an economic use of financial and human resources? Have resources (funds, humans, time, expertise etc.) been allocated strategically to achieve outcomes?
- To what extent have project funds and activities been delivered in a timely manner?

Box 5: Impact Criterion

Impact assesses both positive and negative changes produced by the project, directly or indirectly, intended or unintended. It considers the ultimate development effects of the project and attempts to establish whether or not the intervention created change that really matters to people:

- In addition to the projected results, what other impacts can be identified, positive and negative, intended and unintended?
- Are there any innovative elements of the project with scope to be replicated and/or upscaled and, if so, which ones and how can this be done?

Box 6: Sustainability Criterion

Sustainability is concerned with measuring whether the benefits of the project are likely to continue after UNDP support has come to an end. It is an examination of the technical, social and institutional capacities created by the project and the institutional systems needed to sustain benefits over time:

- To what extent do national partners have the institutional capacities, including sustainability strategies, in place to sustain outcome-level results?
- To what extent have the national, implementing, industry and development partners committed to providing continued support?
- Are there any social or political risks that may jeopardise the sustainability of project outputs and the project contributions to country programme outputs and outcomes?
- To what extent do stakeholders support the project's long-term objectives?
- To what extent are lessons learnt documented by the project team continually and shared with appropriate parties who could learn from the project?

3.5 CROSS-CUTTING ISSUES

The evaluation was sensitive to vulnerable groups (youth and women). One-third of the team was represented by women. The evaluation focussed on gender equality, locational factors (urban vs rural participation) and disability. The evaluation questions in Table 6 were in response to cross-cutting issues.

Table 6: Cross-cutting questions

Vulnerability: <ul style="list-style-type: none"> ● To what extent have poor, indigenous, rural and physically challenged, women, men, youth and other disadvantaged/marginalised groups benefited from the project?
Gender equality: <ul style="list-style-type: none"> ● To what extent have gender equality and the empowerment of women been addressed in the design, implementation and monitoring of the project? ● Is the gender marker assigned to this project representative of reality? ● To what extent has the project promoted positive changes in gender equality and the empowerment of women? Did any unintended effects emerge for women?
Disability: <ul style="list-style-type: none"> ● Were persons with disabilities consulted and meaningfully involved in programme planning and implementation? ● What proportion of the beneficiaries of a programme were persons with disabilities? ● What barriers did persons with disabilities face?

3.6 EVALUATION MATRIX

The Evaluation Matrix was developed based on the questions aligned to the OECD-DAC criteria (Section 3.3) and the cross-cutting issues (Section 3.5) that relate to the issues of gender, location and disability that were developed and are attached to this report as Annexure 1.

The evaluation matrix was used as a guide in conducting the final evaluation. This matrix links each evaluation question to the means of answering that question. Apart from the evaluation

questions, the evaluation matrix provided for the indicators, data sources, data collection and data analysis methods.

3.7 PRIMARY USERS OF EVALUATION

The primary intended users of this evaluation report are those individuals or groups affected by the evaluation outcome, who are in a position to make decisions about the evaluation and who intend to use the evaluation process or findings to inform their future decisions or actions. The primary intended users are the UNDP, the DHET and the Government of Japan (Table 7). Other key users, while not primary, are project partners such as Harambee, IYF and the TVET colleges who could use the evaluation to help them understand how their interventions work in practice, the outcomes and impacts of the interventions and how the interventions can be improved or upscaled.

Table 7: Primary users of the evaluation

User	How evaluation findings will be used
UNDP	<ul style="list-style-type: none"> ○ Developing a management response and actions for improvement ○ Using evaluation findings as source evidence in future strategic planning ○ Providing feedback on the programme design and implementation plan as to what worked and what did not work ○ Sharing proof of concept with other partners ○ Improving the TOC and impact ○ Decision making – assessing impact. Cost-benefit analysis. Deciding the future of the programme
DHET	<ul style="list-style-type: none"> ○ Providing feedback on the implementation process and impact of TVET colleges on the automotive sector ○ Establishing partnerships with the automotive Industry in addressing industry needs and curriculum development ○ Examining those aspects of the project that contribute to or hinder successes in TVET colleges
Government of Japan	<ul style="list-style-type: none"> ○ Demonstrating the effectiveness of the intervention in supporting youth, women and vocational training in South African TVET colleges (development indicators) ○ Collaborating with TVET colleges in the existing JICA Artisan Development Project ○ Establishing whether the project funding was used appropriately and efficiently and provided value for money

4. EVALUATION APPROACH AND METHODOLOGY

The approach to this evaluation was collaborative or participatory to ensure that the key inputs of all the key stakeholders were obtained and taken on board in the design, planning and undertaking of this evaluation assignment. The flowchart below summarises the evaluation methodology and is divided into four phases, namely, (i) the Inception Phase (ii) Data Collection Phase (iii) Data Analysis and Interpretation Phase and (iv) Reporting Phase.

4.1 EVALUATION APPROACH

Figure 5 presents an overview of the evaluation methodology.

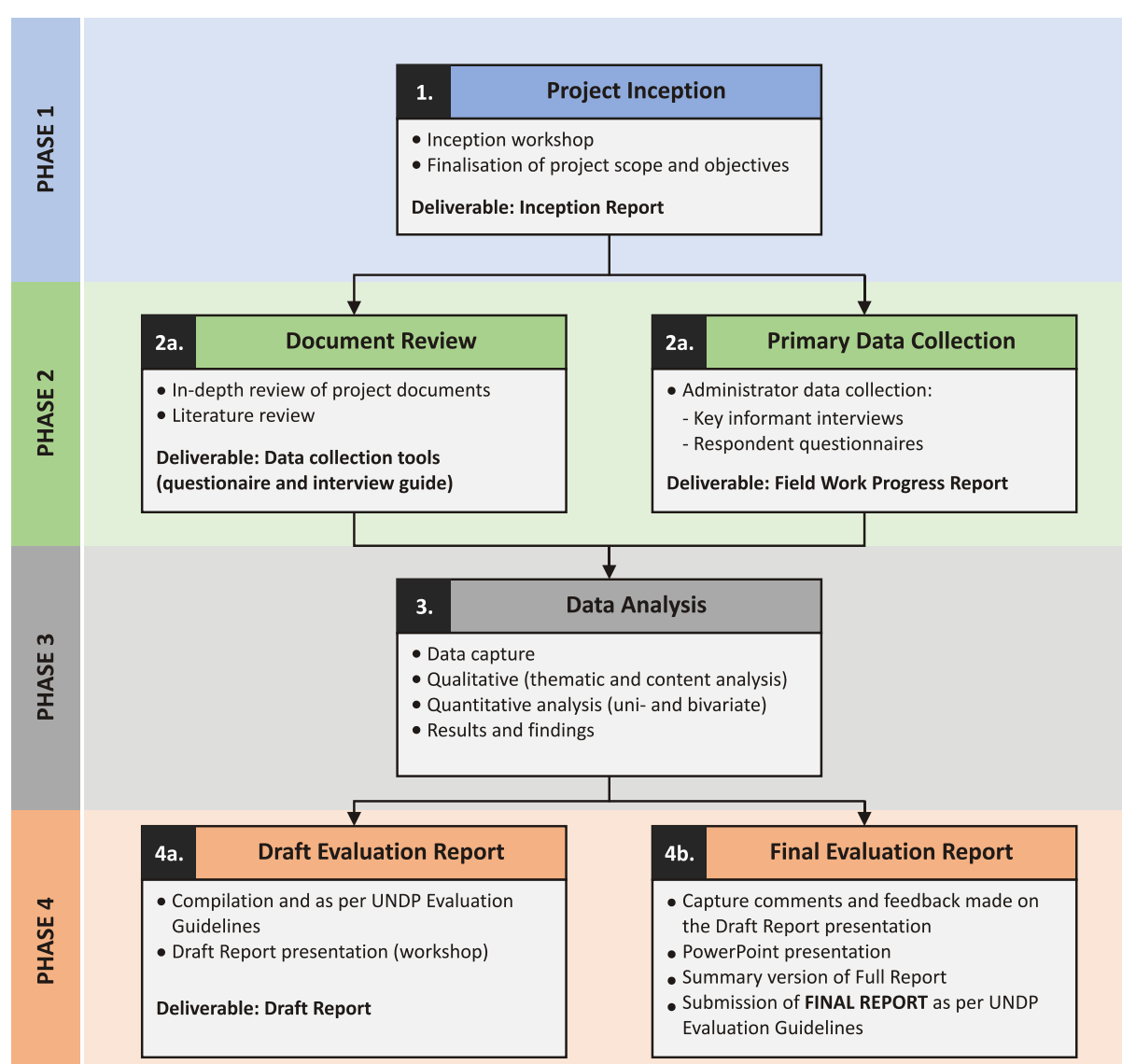


Figure 5: Evaluation methodology

The evaluation methodology applied a mixed-method approach. This method is commonly used in business and social science research as it involves both qualitative (non-statistical) and quantitative (statistical) research techniques. Creswell and Creswell (2018) define mixed methods as a technique where research findings from both qualitative and quantitative approaches are integrated and inferences are made in a single study or a programme of study. Its advantage is that it combines the strengths of both qualitative and quantitative approaches than either approach alone when it comes to answering the evaluation questions.

4.2 DATA COLLECTION PROCEDURES AND INSTRUMENTS

Data collection procedures

The data collection method included both primary and secondary data (document review) collection techniques. This was so that the findings could be triangulated from multiple sources rather than a single-source analysis that may be susceptible to subjectivity. Triangulation helps reduce bias from a single method and improves the credibility and validity of the findings.

Primary data sources included information collected and processed directly through individual key informant interviews, observations, focus groups and self-directed surveys. Actual site visits were undertaken at the three participating colleges to observe the improvements made in these institutions as a result of the project interventions.

Secondary data sources are data sets retrieved through pre-existing sources such as UNDP and partners' project documents, college equipment inventories, government policies, UNDP strategic documents, academic journals, internet searches and/or library searches etc.

Data collection instruments

The evaluators developed and designed semi-structured questionnaires for each respondent category. The questionnaires posed nuanced questions about performance measures with which the respondent was familiar. Data collection instruments were presented to the Project Steering Committee (PSC) for quality control and relevance checks before being administered to the respondents. Data were collected through the following modes:

- Key informant Interviews (face-to-face, telephonic and virtual)
- Online self-administered semi-structured questionnaires (survey)
- Focus group discussions.

4.3 DATA SOURCES

To respond to the evaluation questions, the data sources presented in Table 8 were consulted. The project documents were instrumental in the triangulation of findings together with the data collected from in-depth interviews:

Table 8: Data sources and collection methods

Data source	Rationale for selection	Data collection method
Project documents		
UNDP Project Document	These are project documents that provide the baseline of the evaluation. Project documents guided the evaluation course.	Document retrieval and document review.
UN Ethical Guidelines for Evaluation		
UN Evaluation Guidelines		
Close-out Workshop Presentations		
Field Mission Reports		
PSC Presentations		
Harambee Reports		
IYF Reports		
NAACAM and High Gear Reports		
Equipment Supplier Documents		
Lecturer Training Reports		
Project Progress Reports		
Rapid Needs Assessment Report		
Literature review and policy documents		
UNDP Strategic Plan	Relevant strategic documents and policies that underpin skills development	Online searches, document retrieval and document review.
UNDP SA Country Programme Document		
UNSCDF: South Africa 2020–2025		
National Development Plan		
National Youth Development Agency: Strategic Plan 2020–2025		
National Skills Development Plan 2030		
National Youth Development Strategy		

The data collected from primary sources were from the respondents and informants listed in Annexure 3.

4.4 SAMPLE AND SAMPLING FRAME

The sampling strategy used was a multi-sampling strategy as it involved four different sampling plans, namely, purposive sampling (used for key informants), stratified, random and convenience sampling (used for key respondents). The limitation of the convenience sampling method is that the results cannot be generalised to the population, however, the outcomes offer new learning.

This sampling strategy allowed the evaluators to maximise the response rate. For the respondents, a sample size of 30% of the population was proposed. This sampling plan was discussed and agreed upon with the UNDP PSC. Respondents in this evaluation are the direct beneficiaries of the project, i.e., the TVET college lecturer and learner beneficiaries. The learner beneficiaries are those using the workshops, ICT equipment and tools purchased by the UNDP as well as learners who were part of the ODWPP. All the other participants in the study are key informants as they represent information-rich respondents.

The ODWPP had three cohorts (intakes). The sampling of the learners was first stratified according to cohort/intake and then randomly selected from the attendance list (Table 9).

Table 9: Sampling and response rates

Description	Target population (estimated)	Sample size	Actual reached	Actual responded	Response rate
Respondents					
ODWPP learners	64	20	30	25	83%
Learners benefitting from the provision of equipment	200	90	29	29	100%
Lecturers attending blended teaching methods and automotive training and industry partnerships					
(i) Coastal KZN College	19	8	10	8	80%
(ii) Tshwane South	17	6	6	6	100%
(iii) Northlink	26	8	4	4	100%
Key Informants					
TVET college programme managers/administration					
(i) Coastal KZN	3	2	1	1	100%
(ii) Tshwane South	4	2	6	6	100%
(iii) Northlink	3	2	5	5	100%
Industry partners					
Toyota SA	4	1	3	3	100%
NAACAM	2	1	1	1	100%
Development partners					
GIZ	1	1	1	1	100%
JICA	1	1	1	1	100%
Implementing partners					
Harambee	2	1	1	1	100%
IYF	2	1	2	2	100%
Government departments					
DHET	3	2	1	1	100%
Suppliers/Service providers					
Eiffel Corp	1	1	4	4	100%
Automotive Learning Academy (Harambee subcontract)	1	1	1	1	100%
Urban-Econ Nikela	2	1	3	3	100%
Equipment suppliers	4	3	3	3	100%
Project managers					
UNDP	1	1	1	1	100%

The response rate for the key respondent interviews was very high with most cohorts achieving 100%. However, the response rate for the learner respondents was affected by a couple of factors which included:

- The timing of the evaluation as beneficiaries were on recess in the TSC
- Student protests in Coastal KZN TVET College
- Learners benefitting from equipment not yet having been exposed to the equipment in TSC.

Figure 6 displays photos of some of the interventions observed during the data collection stage.



Figure 6: Picture gallery of some interventions

4.5 STAKEHOLDER PARTICIPATION

Stakeholders identified by the UNDP were consulted as part of the evaluation's collaborative methodology and approach. A total of 16 stakeholder organisations were engaged as per Table 10. The evaluation was gender sensitive as a total of 32 women participated in various capacities from representing their organisations to being respondents of the evaluation. A comprehensive stakeholder list is provided in Annexure 3.

Table 10: Stakeholder participation and disaggregation of women participants

Stakeholder category	No. of organisations	Total participants	Women participants
Project managers	1	4	2
Government departments	1	1	0
Project beneficiaries	4	84	24
Implementing partners	2	3	2
Industry partners	2	4	1
Development partners	2	2	0
Service providers	4	11	3
Total	16	109	32

The women representation was 29.3% of the entire evaluation participants.

4.6 DATA ANALYSIS

Data analysis involves the process of organising and classifying the information collected and tabulating, summarising and comparing the results with other appropriate information from project documents to extract useful information that relates to the evaluation questions and fulfils the purposes of the evaluation. The interpretation of the collected and researched information and data led to reaching significant findings and conclusions and making recommendations. The range of questions and issues related to the OECD-DAC criteria on relevance, coherence, effectiveness, efficiency, impact and sustainability provided the foundation for establishing the findings and results related to the success and impact of the project. This further informed the evaluation findings.

Both qualitative and quantitative data analysis techniques were used.

Quantitative analysis – Google Forms, IBM SPSS and Excel to analyse quantitative data. Data were analysed for descriptive statistics that included frequencies, descriptive and crosstabs.

Qualitative analysis – Qualitative data obtained from the respondents and informants were analysed according to emerging themes and patterns. The themes generated were then triangulated with quantitative data for the results, findings and recommendations. The Evaluation Matrix (Annexure 1) describes the analysis techniques used per key evaluation question.

*** Data on vulnerable groups was disaggregated according to gender and youth.

4.6.1 Reliability and Validity

Triangulation of the research method (where both qualitative and quantitative approaches are utilised) and the data collection approach (secondary and primary) addressed the issues of reliability and validity. The data collection instruments were discussed with the UNDP Project Evaluation Steering Committee and peer-reviewed to improve their validity. Data were collected in line with the United Nations Evaluation Guidelines (UNEG) ethical guidelines.

4.7 ETHICAL CONSIDERATIONS

Research ethics were observed throughout the evaluation period and beyond. Our evaluation team members individually signed the Pledge of Ethical Conduct in Evaluation. The evaluators declared that they applied UNEG's Ethical Guidelines for Evaluation and they adopted the associated ethical behaviours on integrity, accountability, respect and beneficence.

4.8 MAJOR LIMITATIONS OF THE EVALUATION

- The methodology lacks the counterfactual as there was no control group tested. This limitation affects the measurement of the impact of the project. Attribution to the intervention cannot be ascertained using impact evaluation methodologies.
- Although the use of multi-sampling techniques impacts generalisability, lessons can be learnt from the outcomes achieved.

4.9 PROJECT EVALUATION STEERING COMMITTEE

A PSC was established to guide the planning, implementation, analysis and quality assurance of the entire evaluation. The PSC was composed of four members from the UNDP – Phumla Hlati (Programme Manager: Inclusive Growth), Izumi Ogawa (Policy Associate: Inclusive Growth), Frederick Shikweni (Monitoring and Evaluation Specialist) and Sangsun Kwon (Monitoring and Evaluation Associate). Katleho Agri Partners were represented by Jantus van der Linden, Musawenkosi Senda and Danielle Dass. The PSC met four times before the submission of the Draft Report and communicated iteratively through e-mails throughout the evaluation period.

5. FINDINGS

A range of evaluation questions were formulated to establish to what extent the project achieved the intended objectives, outputs and outcomes and whether it was implemented and undertaken efficiently and cost-effectively. These questions were framed using the OECD-DAC evaluation criteria and were organised within the evaluation categories of relevance, coherence, efficiency, effectiveness, impact, sustainability, lessons learnt and recommendations to improve the future phases of the project.

As indicated in Section 4 above, information was collected through:

- In-depth interviews with management staff of the participating TVET colleges
- In-depth interviews with participating lecturers of the beneficiary TVET colleges
- Discussions and an online survey among selected learners who benefited from using the equipment and ICT tools provided by the project
- Discussions and an online survey among selected youth and women who took part in the operator development programme
- Consultation with key project stakeholders and the UNDP project management team
- An in-depth document review (project-related documentation) and a literature review

While the evaluation was focused on an assessment of the pilot project as a whole, it also evaluated the five individual project interventions or activities if and where such were relevant and appropriate.

Findings are organised and grouped in terms of the DAC evaluation criteria and respond to the evaluation questions.

5.1 RELEVANCE OF THE PROJECT

Relevance refers to the extent to which the project is suited to and consistent with the target beneficiaries' priorities and needs, as well as the development objectives and opportunities of the TVET sector and the automotive industry.

The evaluation found that the project was relevant for the following reasons:

5.1.1 Relevance in terms of alignment with National Development Priorities, the UNDP Strategic Plan, the UNSDCF and the Country Programme Document

- The project addresses the NDP priorities for the empowerment of vulnerable women and youth through their participation in improving their education and skills. These priorities are also espoused by the UNDP in its Strategic Plan, Country Programme for South Africa Document and UNSDCF documents.
- The Automotive TVET Project beneficiaries benefitting from equipment use and those that attended the ODWPP were all youth. A majority (88%) of the ODWPP beneficiaries came from townships or rural areas which are usually marginalised.

5.1.2 Relevance to needs of TVET colleges and stakeholders

- There is consensus among project stakeholders that the project was relevant since it was specifically designed to address some of the main weaknesses endemic to the TVET sector. This design was informed by a well-researched Rapid Needs Assessment that focused primarily on a skills and equipment gap analysis and which identified four key areas requiring support by the project, namely that TVET colleges have limited financial resources to invest in new technology for teaching (workshop equipment), the recognition that blended learning skills is essential to producing better-skilled learners for the automotive sector; that learners and lecturers required ICT equipment and training to engage with modern pedagogics (ICT skills), that the curriculum was outdated and did not respond to industry needs (curricula) and that non-technical skills essential to the workplace were absent from the curriculum (soft skills).
- To further enhance the relevance and ownership of the project, the priority needs were identified with the TVET colleges during the Rapid Needs Assessment exercise. The top priority needs were selected in consultation with the three participating TVET colleges. While some of the selected needs were common to all three colleges, other project components and interventions addressed specific and unique needs and requirements identified for each college. It can thus be stated that the project and its various interventions were most relevant as they were purposely selected and designed to address the priority needs of each college.
- Project relevance is clearly demonstrated by the examples in Table 11 showing the direct link between project interventions and the priority needs identified by the colleges and stakeholders for action.

Table 11: Interventions vs needs (as identified by colleges and stakeholders)

Priority needs selected for attention	Project interventions implemented
Outdated automotive workshops (not capable of preparing learners for evolving automotive sectors and industry standards).	Two colleges receiving various automotive-related equipment items specifically selected to address identified shortfalls and constraints.
Colleges lack ICT infrastructure and equipment to offer online training and cope with the changed education and training landscape post-COVID-19.	Colleges received laptops, interactive whiteboards and projectors and digital content and training material to increase their digital and online training capacity.
Lecturers lack the knowledge and skills to offer quality blended and online learning.	Blended learning training was provided to lecturers from all three participating colleges to address this high-priority need.
Lecturers in engineering trades and STEM subjects lack current lecturing content and material to make lectures interesting and to help bridge the gap between theory and practice.	Colleges are capacitated with the LJ Create's Content System and the digital material provided via the Yakh'iFuture platform.
Curricula lack soft skills training resulting in graduates lacking interpersonal and social skills needed for success in the world of work.	Colleges are capacitated with access to soft skills learning material and modules via Passport to Success and the Yakh'iFuture platforms.
Graduates find it difficult to find employment, resulting in a large percentage joining the ranks of unemployed graduates.	The project supported the development and promotion of two youth employment platforms (Yakh'iFuture and SAYouth.Mobi), thus creating a link between learners and employment opportunities.

- Respondents from the training sector are of the view that blended learning is critical for future trends in education and training, especially integrating digital skills and methods such as e-learning platforms. All respondents confirmed that blended learning creates opportunities for youth in peri-urban and rural areas that do not have the financial and locational means to access good quality training where they reside. Furthermore, in the ODWPP, the UNDP provided tablets, data, personal protective equipment and stipends that ensured that no peri-urban and rural-based participant was disadvantaged as compared to their urban counterparts. The result of providing learning aids and financial support is captured very well in this stakeholder quote:

"I really do think that we set them up for success and we gave them a great opportunity."

5.2 COHERENCE OF THE PROJECT

How well does this intervention fit or is compatible with other interventions in a country, sector or institution? The extent to which other interventions (particularly policies) support or undermine the intervention. The focus is also on partnerships and linkages and understanding interventions within broader systems. Both relevance and coherence consider how the intervention aligns with the context, but they do so from different perspectives.

5.2.1 To what extent is the project in line with government policies and strategies on youth skills development and employment and on the development of the automotive sector?

- The Automotive TVET Project is in line with the South African government's strategy of fighting the triple challenges of poverty, unemployment and inequality. The focus on the marginalised groups, i.e., youth and women, is in line with the NDP on placing women and youth at the centre of developing the economy. Other policies with which the Automotive TVET Project is aligned include the following:
 - United Nations Sustainable Development Cooperation Framework
 - UNDP South Africa Country Programme Document
 - UN Sustainable Development Goals
 - National Youth Policy (NYP)
 - Integrated Youth Development Strategy (IYDS 2020)
 - National Youth Development Agency (NYDA).

The NYP 2020–2025 (p.9) states:

"In South Africa, completion of any post-schooling qualification significantly improves prospects in labour market participation, economic inclusion, and poverty reduction while intermediary skills reduce income inequalities. ... Access to post-school education and training is limited for school leavers, and those who access these opportunities are often not sufficiently prepared for the workplace due to the poor quality of education and training provided..."

- This project also fits well into the South African Automotive Masterplan (SAAMP) 2035 which has identified future industry needs in terms of technology and associated skills as being one of its eight focus areas during the lead-up to 2035. The SAAMP also seeks to double its workforce to 224 000. This project, therefore, aligns with the industry's future plans.
- Finally, the TVET project fits well into the NSDP 2030 whose vision is to create a skilled and capable workforce for South Africa. The NSDP seeks to develop both basic and technical skills, with a focus on the historically disadvantaged.

5.2.2 To what extent has the project been able to build on other initiatives and create synergies with other projects, partners and programmes?

- The UNDP Automotive TVET Project was implemented simultaneously with the JICA Artisan Development Project for TVET colleges. JICA was already implementing this programme in Northlink TVET College and TSC. The operational presence of JICA in Tshwane South and Northlink TVET colleges was advantageous in that JICA shared institutional knowledge of these colleges with the UNDP.
- Synergies have been established with TSAM and Coastal KZN TVET College. TSAM has refurbished and equipped the three workshops (mechanical, electrical and electronics) in Coastal KZN TVET College and has opened a Toyota Manufacturing Academy (TMA). TSAM has further recruited 25 young people who attended the N4 courses at the TMA at Coastal KZN TVET College. Tuition, stipends and work placement were all provided by TSAM.
- Further synergies have been established with the SAYouth.mobi – an online platform where learners from the TVET colleges can link with employers for work opportunities. GIZ has also indicated that they will be partnering with the UNDP on rolling out digital skills.

5.3 EFFECTIVENESS OF THE PROJECT AND THE SUPPORT PROVIDED

Effectiveness refers to whether or not the objectives of the project and its interventions have been achieved or are expected to be achieved. The assessment attempted to establish whether the project interventions achieved their intended results – outputs and outcomes are usually closely related.

5.3.1 Achievement of project planned targets and results

For evaluation purposes, the targets and results proposed and specified in the Project Document (approved and agreed upon between DHET and UNDP on 07/07/2021) were used and redefined to reflect developments over the project implementation period. The overall performance of the project and the extent to which the contracted targets, results and outputs have been achieved is reflected in Table 12.

Table 12: Automotive TVET Project targets and results

Expected outputs	Output indicators	Targets	Results achieved
Output 1 <i>Institutional capacity of the TVET colleges strengthened to identify challenges and opportunities for vulnerable youth and women in the automotive sector in the COVID-19 context</i>	1.1 Number of knowledge products on rapid assessment of vocational skills gaps and needs in the automotive sector and on TVET challenges and opportunities created	2 Reports	A Comprehensive Needs Assessment Report covering three assessments: <ul style="list-style-type: none"> Needs assessments on challenges of TVET colleges TVET colleges' institutional capacity TVET colleges' needs for online learning and automotive training infrastructure. Targets achieved
Output 2 <i>Provision of automotive and lifelong skills for vulnerable women and youth strengthened to increase access to employment opportunities in the automotive industry through the increased technical capacity of TVET colleges</i>	2.1 Number of youth (target 40% women) benefitting from the provision of equipment including online learning and/or upgraded automotive training	Target 200	The estimates obtained on monitoring visits by UNDP are 24 TSAM students at the Coastal KZN TVET College, 240 at the Northlink College, and 90 at the TSC. TOTAL = 354 Target achieved
	2.2 Number of youth benefitting from upskilling courses in cognitive, socio-emotional and digital skills for building resilience in the post-COVID-19 context and increasing employability	Target:300	Results activities 2.2. (a) 64 learners trained in ODWPP (b) 24 trained through TSAM. TOTAL = 88 Target not achieved
Output 3 <i>Automotive, tools and ICT equipment procurement</i>	Equipment procured as per Rapid Needs Assessment Report	As per the Rapid Needs Assessment Report to the budgeted amount of US\$315 000: Provision of: (a) Automotive equipment to TSC and Coastal KZN (b) ICT and online learning equipment for all three colleges (c) Digital software and content to facilitate curriculum development support	Results Activities 3 ZAR 6,524,785.34 spent on equipment, tools and ICT as per reprioritised needs assessment (a) Mechanical, electrical and electronic workshop tools, equipment and cut-out models delivered and installed to specifications (b) 100 x laptops and 10 tower computers, 6 x interactive whiteboards, 6 data projectors, 2 printers and other peripherals delivered and installed (c) LJ Create's cloud-based software and content for STEM are provided to three colleges.

Expected outputs	Output indicators	Targets	Results achieved
			Target achieved
Output 4 <i>Lecturer development</i>	Number of lecturers trained in blended learning methods and skills	(a) Blended learning methods and skills: 24	(a) Total of 24 lecturers attend blended learning training courses (two courses).
	Number of lecturers trained in Automotive technical development and industry partnership	(b) Automotive technical development and industry partnership: 30	(b) Total of 35 lecturers attended automotive development and industry partnership courses (3-day courses).
			Target achieved
Output 5 <i>At least one sustainable platform for trained women and youth, private sector, academic institutions and policymakers established to link job seekers with job opportunities in the automotive sector</i>	5.1 Number of platforms for engaging youth entrepreneurs, policymakers, private sector and academic institutions to discuss opportunities and barriers to youth entrepreneurship and employment established	Supported the following: (a) Development and establishment of the Yakh'iFuture platform (b) Access to and utilisation of the SAYouth.mobi platform	(a) Yakh'iFuture established and populated with automotive training material and career opportunities and information accessible to learners via the NAACAM website since April 2022. (b) SAYouth platform supported and marketed among learners at the colleges and learners encouraged to register on the platform reported that to date 12 230 students registered and 694 were assisted to find employment.
	5.2 Number of workshops conducted on vocational training and upskilling among stakeholders	(a) Originally envisaged two workshops might be held	(a) Two lecturer training courses and one workshop
			Target achieved

It is clearly evident from Table 12 that all the interventions have been undertaken and implemented within the project timeframe. This is a major achievement considering the short implementation period of just one year and the additional complications caused by the COVID-19 lockdown with which the project had to contend.

Table 12 further reflects that some targets, such as the number of students receiving digital online training and/or exposure to the newly acquired training technologies and equipment, could not be achieved within the project timeline for two reasons: first, at TSC, some equipment had been received only four days before this evaluation commenced and second, because learners who were identified to use the equipment were still on recess and would only have access to the workshops in the forthcoming months. There is a firm belief among college management that the required capacity and ability have been created at the colleges and that these targets will be attained and possibly exceeded as soon as learners return to class.

5.3.2 Factors that contributed to the effectiveness

- The Rapid Needs Assessment of TVET colleges was undertaken professionally resulting in a comprehensive report which clearly and accurately defined the challenges, opportunities and needs of TVET colleges in general and made specific recommendations on how the Automotive TVET Project could address priority needs at the three participating colleges. This report and its recommendations served as the basis for the design of the project interventions.
- The automotive and ICT equipment and tools procured and installed at the colleges were selected with their specified priority needs in mind. Feedback from college management, lecturers and learners confirmed that the procured equipment is addressing the identified shortfalls and constraints and is thus considered a highly effective intervention.
- Lecturers consulted rated the lecturer development interventions aimed at enhancing their knowledge and skills to better align with the changing digital and automotive operating environments as highly effective.
- While it is still too early to fully evaluate the effectiveness of the two online platforms linking youth to industry, it has been reported that the SAYouth platform has already registered 12 230 students and that so far 694 have been assisted to find employment or income-generating opportunities. These results were achieved even though the colleges have not had the opportunity to give much attention to learner enrolment and participation on the platforms (with one having been launched only recently).
- The project components were a good mix of hardware and equipment for training purposes combined with soft skills training to which lecturers and learners did not have access before. Views expressed by stakeholders were that this pilot was so effective that it can be replicated in other related courses such as Building and Construction faculties and that it should be expanded and rolled out to other TVET colleges with automotive departments.
- All external stakeholders agreed that this pilot enhances the ability of learners to be more marketable and employable within the automotive industry. The development of employment platforms was singled out as an essential element to mitigate the high youth unemployment and under-employment rate.

5.3.3 To what extent has the project partnership strategy been appropriate and effective?

- The success of any development project is wholly dependent on the skills and capabilities of its contributing partners. In this case, the UNDP is lauded for selecting the best possible partners with extensive skills and experience in training in general and the automotive sector in particular. Figure 7 shows how strategic partners and contractors were brought into the project to play very particular roles in which they had expertise. It is this combination of collective skills that many respondents attribute to the effectiveness and success of this pilot project.

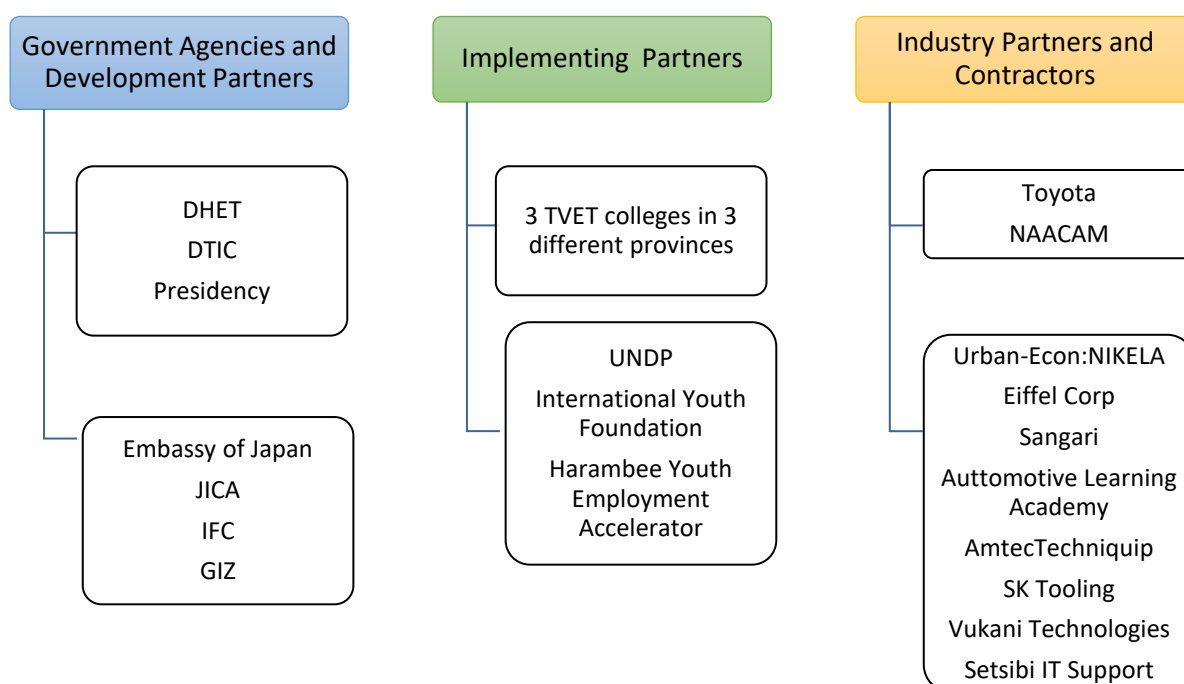


Figure 7: UNDP stakeholders

This pilot was fully supported by the national government, therefore, enjoying a high political profile. It brought TVET colleges to the forefront of the public eye and got very good media coverage (with the Minister of Education, the Japanese Ambassador and UNDP-SA representatives attending high-profile project functions).

- The participating colleges reported that the UNDP excelled in their consultation and communication with colleges and in getting their input and guidance. This resulted in widespread buy-in and commitment from the colleges which in turn enhanced the effectiveness of the project.

“Never once did UNDP do anything without express support from each college.”

- From Harambee’s experience, it is evident that training must be driven by employer needs as this creates the appetite to recruit workers from TVET colleges. This feedback loop can only be achieved if the demand side (employers) endorses the skills coming out of institutions (supply side). Therefore, partnerships with youth employment agencies are an essential link between what TVET colleges produce and what employers such as Toyota and Nissan require of their entry-level artisans.
- The digitisation of continuous learning through the Yakh’iFuture platform is a best-practice model to assist TVET colleges that do not have experiential training opportunities in place. This platform provides useful information about the automotive sector, career pathways and useful videos to improve practical skills through simulations and online practicals. Yakh’iFuture is linked to the SAYouth employment website in the Presidency so users now have access to a complete system of continuous learning and linkages with employers.

5.3.4 *Factors that contributed to the ineffectiveness*

- Selecting insufficiently orientated lecturers to participate in the blended learning training courses resulted in a poor pass rate and many not completing the full course. Some of the selected candidates were not well-orientated regarding the time and level of effort that the training would demand of them (especially to complete the assignments). This resulted in poor motivation to submit the very demanding assignments which meant that they did not achieve the minimum pass rate. Future candidates are to be selected more carefully and to be properly orientated to course demands before their enrolment.
- Poor timing of the blended learning courses also impacted negatively on the effectiveness thereof. Several lecturers still had lecturing and other work responsibilities that made it difficult/impossible for them to attend all training sessions. The two courses were also offered in close succession resulting in a much lower participation rate for the second course. Future courses should be offered during quiet periods in the academic year and with at least a three-week interval between the two courses.
- It was cautioned that the work readiness programme (WRP) within the ODWPP was too short to fully equip the learners with work readiness and that more time was needed to address gaps related to health and safety issues and the financial impact of mistakes on the shopfloor.
- The curricula in all three participating TVET colleges require immediate updating. This entails a long and complex process requiring inputs from various government and skills development experts. The introduction of new technologies sits in contrast with current outdated learning material.

5.3.5 *How have outputs been transformed into outcomes?*

The transformation of outputs into outcomes is an essential part of the results chain. Table 13 demonstrates how outputs were converted into outcomes.

Table 13: Outputs converted into outcomes

Activity	Output	Outcome
Rapid Needs Assessment of TVET colleges	1 Needs Assessment Report (three assessment reports integrated into one report)	<ul style="list-style-type: none"> - Identified the main challenges faced by the TVET colleges - Informed the successful design of the project intervention
Automotive and ICT equipment	<ul style="list-style-type: none"> (a) Mechanical, electrical and electronic workshop tools, equipment and cut-out models delivered and installed to specifications (b) 100 laptops and 10 tower computers, 6 interactive whiteboards, 6 data projectors, 2 printers and peripherals delivered and installed. (c) LJ Create's cloud-based software and content for STEM provided to three colleges 	<ul style="list-style-type: none"> - Improved college capacity for tech-based learning methods - Improved implementation of practical learning methods

Activity	Output	Outcome
Learners benefitting from using equipment and ICT tools	The estimates obtained on monitoring visits by UNDP are: <ul style="list-style-type: none"> - 24 TMA students at Coastal KZN TVET College - 240 at Northlink College - 90 at Tshwane South TVET College 	<ul style="list-style-type: none"> - Increased exposure to the automotive sector - Improved employment opportunities - Improved soft skills - Increased access to online platforms such as SAYouth - Increase skills base in the automotive sector - Increased number of women gaining automotive skills
Lecturer development: <ul style="list-style-type: none"> - Blended teaching methods - Automotive technical development and industry partnership 	<ul style="list-style-type: none"> (a) A total of 24 lecturers attended the two blended learning training courses (b) A total of 35 lecturers attended automotive development and industry partnership courses (three-day course) 	<ul style="list-style-type: none"> - Improved lecturer skills in blended teaching methods - Improved skills in industry partnership - Better pedagogy skills
Trained youth in KZN – merSETA accredited skills training	64 learners completed the entry-level Manufacturing Operator's training	<ul style="list-style-type: none"> - Increased exposure to the automotive sector - Improved employment opportunities - Improved soft skills - Increased access to online platforms such as SAYouth - Increased skill base in the automotive sector - Increased number of historically disadvantaged individuals (HDIs) accessing skills - Increased number of women gaining automotive skills
Two online platforms linking graduates to industry-supported	Two platforms are supported, namely the SA Youth platform and Yakh'iFuture platform	<ul style="list-style-type: none"> - Increased access to online platforms such as SAYouth (84% of the ODWPP respondents indicated they are using this platform) - Improved soft skills through PTS - Opportunities for continuous and lifelong learning

The ultimate goal of converting outputs into outcomes is to ensure that the programme and project-specific development indicators are achieved. Table 13 indicates that the project successfully converted activities to results.

5.4 EFFICIENCY OF THE PROJECT AND THE SUPPORT PROVIDED

Efficiency measures the qualitative and quantitative outputs in relation to the inputs of the project. It assesses how well resources have been used and checks whether the projects' resources can be justified by the outputs and results.

The approved budget for the Automotive TVET Project was US\$1 180 000. This figure includes the 1% coordination levy of US\$11,683.00. Table 14 shows the budget breakdown versus project expenditure for all three TVET colleges, itemised according to each output and planned activity.

Table 14: Project budget and actual expenditure

Budget activity	Budget (US\$)	Expenditure including commitments (US\$)
Output 1: Needs Assessment of the three colleges	40,000.00	34,450.95
Output 2: (a) Enhanced TVET college institutional capacity (b) Upskilled youth and women	515,794.00	682,022.73
Output 3: (a) Supported digital platforms to link to the industry (b) Lecturer training and close-out workshop	303,000.00	188,688.05
Direct project costs	222,981.00	181,110.21
General management support	86,542.00	77,980.63
Total	1,168,317.00	1,164,252.57

A further breakdown of expenditure on the procurement of automotive, electrical and electronic workshop equipment and tools as well as the ICT equipment amounting to ZAR6,524,785.34 is provided in Table 15.

Table 15: Total project expenditure on equipment

Items	Beneficiary TVET colleges	Amounts in Rand (Excluding VAT)	Amounts in USD (Excluding VAT)
ICT equipment for online and blended education[1]	All three	1,906,806.50	123,615.91
Digital content for developing students' soft skills	All three	1,582,500.00	101,703.33
Mechanical workshop equipment and tools	Coastal KZN	1,655,996.70	108,998.85
Automotive components for training	Tshwane South	332,881.20	20,748.02
Additional ICT equipment for online and blended education[2]	All three	641,604.94	39,530.55

[1] An interactive whiteboard and a projector were provided for Coastal KZN TVET College; 30 laptops, an interactive whiteboard and a projector for Tshwane South TVET College; and 60 laptops, two whiteboards and two projectors for Northlink College.

[2] Two interactive whiteboards and two projectors were provided for Coastal KZN TVET College; 10 desktop towers and monitors for Northlink College; and 10 laptops, two all-in-one printers and computer accessories for Tshwane South TVET College.

Items	Beneficiary TVET colleges	Amounts in Rand (Excluding VAT)	Amounts in USD (Excluding VAT)
Electrical and electronic workshop equipment and tools	Coastal KZN	404,996.00	25,943.83
Total		6,524,785.34	420,540.49

It should be noted that the project had a fixed budget when conceptualised and agreed upon in the project document, and this budget largely determined and guided what amounts could be allocated for each of the project outputs per participating college. While feedback from the colleges was that it made a critical contribution towards addressing some of their priority equipment needs, their requirements and demands were much larger than what could be provided by the project.

5.4.1 To what extent has the project's implementation strategy and execution been efficient and cost-effective?

Examples of good efficiency (to be replicated in future similar projects):

- The fact that all the project interventions could be implemented in a very short timeframe of just over one year (from March 2021 to June 2022) and despite the negative impacts of the COVID-19 pandemic is a great compliment to project managers and speaks volumes to the efficiency and dedication of the various stakeholders responsible for project implementation.
- Appointing a suitably qualified and experienced service provider to undertake the Rapid Needs Assessment proved to be an efficient and cost-effective option as they delivered a high-quality product within a relatively short period. It is doubtful whether a needs assessment undertaken by the individual participating colleges could be undertaken equally efficiently and with the same quality standards.
- Using the UNDP to procure equipment and services for and on behalf of the three colleges enhanced the efficiency and cost-effectiveness of the procurement process significantly. Goods were procured in bulk which created bargaining power to procure items at reduced unit costs (economies of scale). It also simplified and ensured an efficient procurement process with uniform specifications, quality standards, warranty and maintenance conditions etc.
- The decision to partner with key stakeholders (e.g., NAACAM as a project partner to develop the Yakh'iFuture platform; Harambee's SAYouth.mobi as the youth employment platform) involved in the automotive industry and the youth employment field and to utilise their expertise and existing initiatives and products enhanced the efficiency of product development and service delivery significantly as all these deliverables did not have to be developed from scratch.

Reasons for good efficiency:

- All respondents noted the efficiency and practical involvement of UNDP staff throughout every process of this project. Some direct quotes are:
 - *"A very involved sponsor. People are so removed from the technical aspects so this involvement was a sign of them knowing what management skills were needed."*
 - *"Exceptionally well-managed project."*

- *“Very open to advice and practical-minded. Whenever challenges were raised, UNDP was quick to assist, for example, when asked if other departments can be included, UNDP was very accommodating.”*
- *“UNDP staff demonstrated a high level of commitment to the project and had a presence in every site visit for the full three days.”*
- TVET management and contact personnel were passionate about this project and, as a result, it enjoyed buy-in from all levels of staff and learners.
- Having UNDP project managers correspond directly with colleges to get access to people and processes is a best-practice model and this communication protocol is recommended for future donor-funded projects.
- Part of the success of the blended learning training was that training providers had done this training with other TVET colleges before being contracted into this pilot. Their experience and expertise hold them in good stead to be a part of any subsequent phases.
- The pre-assessment testing, medical testing, technical tests for aptitude and verification of criminal and academic records used in the ODWPP is a highly efficient approach for selecting learners because they have a higher likelihood of passing automotive courses.
- The UNDP’s pay-for-performance approach made it easier because the TVET system is a high-uncertainty environment so it was easy to follow the UNDP’s processes for payments.

Efficiency challenges:

- The initial budget allocation was increased to respond to the TVET colleges’ unique equipment requirements and additional ICT, electrical and electronic workshop equipment. When setting budgets, it is important to take into consideration that the TVET colleges are all at different levels of development and alignment to industry standards and that they will have different financial needs in making them compliant and responsive.
- The small UNDP project management team were stretched to capacity and may not be able to maintain these high-efficiency standards should this project increase in scope
- While the centralised procurement model was highlighted for its contribution towards efficiency, it simultaneously also had a negative impact on efficiency since the use of a single ICT equipment supplier and installer meant that some colleges had to wait a very long time before their equipment was delivered and installed (with some colleges reporting that their equipment was only installed a few weeks before the evaluation). As a result of these delays, machinery had not been used at some colleges.
- There is no learner tracer programme in place to monitor the rate of employment of learners per institution. This will make it difficult to attribute employability improvements directly to this project intervention.
The lecturer training does not count towards continuous professional development points. This might create reluctance to attend if lecturers are not compensated or recognised in any way. The tight timeframes resulted in the lecturer training not having a chance to be recognised for continuous professional development by professional bodies such as the Quality Council for Trades and Occupations (QCTO), the South African Council for Educators (SACE) and the Sector Education Training Authorities (SETAs).
- The pilot did not consider load shedding which affected the lecturer training conducted online. It also compromised the stability of the Wi-Fi signal and the internet data required to continue teaching and learning in the absence of free Wi-Fi supplied by institutions as some lecturers had to access portions of the training from home.

- Suppliers noted the short time frames for implementation. In some cases, suppliers could not plan ahead and had to respond in quick turn-around times. Also, project partners are committed to their own annual plans so expecting them to accommodate new projects at short notice is not ideal. An example of this was the project launch that was postponed on three occasions because the earmarked dignitary was not available to attend.
- The selection of TVET colleges in any future phases should consider financial viability, any force majeure that may impede operations and the proximity to employment opportunities. For example, Coastal KZN TVET College is currently under administration so there is uncertainty about staff and students participating in longer-term projects such as this one.

5.5 IMPACT OF THE PROJECT

Impact assesses both positive and negative changes produced by the project, directly or indirectly, intended or unintended. It considers the ultimate development effects of the project and attempts to establish whether or not the intervention created change that really matters to people. It takes a broader perspective and a more holistic view of the effect of the project – beyond the immediate results and the attainment of key performance indicators (KPIs) captured and reported under the effectiveness criterion.

Against the above and given that the evaluation study had to be undertaken almost immediately after the end of the project, it is evident that sufficient time has not yet elapsed to establish what the longer-term impact and effects the project and its interventions have had on its beneficiaries – and beyond them on other stakeholders and the larger TVET college environment. The following could however be established as important immediate impacts:

5.5.1 In addition to the planned results as set out in the project document, what other impacts can be identified, positive and negative, intended and unintended?

Positive impacts:

- Modern workshops and ICT equipment augur well for the digital or Fourth Industrial Revolution epoch. These allow for improved hybrid learning and allow TVET colleges to reach a larger audience.
- Through the procurement and installation of the specified range of ICT equipment, the capacity of the participating colleges to render more and better computer-based training has been established. This increased capacity should benefit these colleges and their learners for a period of at least five years (the estimated lifespan of ICT equipment) and will help them to better cope with the changing training environment created by the COVID-19 pandemic.
- Various interventions of the project (e.g., ICT equipment, the procurement of the LJ Create's Content System, the Yakh'iFuture platform and the lecturer training in blended learning) have substantially increased the ability and capacity of the three participating colleges to offer more and better blended and online training.
- As indicated above, blended learning is a pedagogical approach that will become a permanent feature in all levels of teaching and learning going forward. The

digital engineering learning material and teaching aids provided by the LJ Create's Content System and offered on the Yakh'iFuture platform are very useful and popular, especially for TVET college students who have little access to equipment. These online learning aids help to teach complex engineering concepts in an interactive way and at a fraction of the cost of purchasing the actual machinery. In addition to the longer-term impact of cost savings for TVET colleges to redirect budgets to other areas of operation, feedback from lecturers indicates that it has made a significant contribution towards improving lectures and will greatly enhance their ability to explain and link theory to practice in STEM fields.

- The automotive equipment procured for two of the colleges together with the automotive development and industry partnership training provided to automotive lecturers will help to better align colleges with developments in the automotive industry and help bridge the gap between the knowledge and skills demanded by the industry and what is presently offered by the colleges.
- This project was allowed to market the SAYouth employment website and other workplace readiness platforms such as Harambee and Yakh'iFuture to graduates and undergraduates. While it is too early to determine the impact that these platforms have on the employability of learners, SAYouth has reported that 12 230 students have already registered on their website and that 694 have been assisted in finding jobs thus far.
- The focus that the project has placed on the importance of including soft skills in the learning programmes and curricula of all study fields will make a big contribution towards and impact on developing more rounded graduates who do not only possess technical skills but also have an array of other interpersonal skills needed to function successfully within a working environment. Including soft skills in the curriculum will not only improve graduates' chances of gaining employment but also create mature learners with nuanced emotional intelligence skills that will be useful in the high-stress automotive industry.

Negative impacts:

- Employers such as Toyota had to adjust to the way TVET colleges conduct their business – the industry is generally time conscious and they want value for money and this is rarely practised in public institutions. This could negatively impact the willingness of industry partners to undertake future joint ventures with TVET colleges.
- Of the respondents on the Operator Development and Work Placement Programme (ODWPP) – Manufacturing Operators, 80% of them are NEETs which means that the large majority remain unemployed.

Unintended impacts:

- Colleges can use workshop equipment and tools as a service for external stakeholders and get paid for them. Well-equipped workshops now have the opportunity to become income-generating.
- Student Services and Student Placement departments in TVET colleges have seen the need to conduct emotional intelligence and workplace readiness training for their own graduates.

- Partners in the project are now familiar with the work ethos of the UNDP and have enhanced their ability to work with multiple partners which they can use in projects with other clients.

5.6 SUSTAINABILITY OF THE PROJECT

Sustainability is concerned with measuring whether the benefits of the project are likely to continue after the UNDP support has come to an end. It is an examination of the technical, social and institutional capacities created by the project and the institutional systems needed to sustain benefits over time.

Positive sustainability findings:

- The project and its various interventions were needs-based (needs identified, verified and prioritised during the Rapid Needs Assessment process). This needs-based approach will serve as one of the most important reasons why the interventions should be sustainable over the medium to longer term.
- The project established a partnership model consisting of role-players from the government sector, the private sector, public TVET institutions and a donor agency which ensured that all the key interest groups needed for successful implementation and long-term sustainability had been incorporated and locked into this joint venture. It set the basis for sustainability and the future continuation of the project and its benefits. Partnerships established with strong and experienced institutions to help implement some of the interventions (such as NAACAM on the Yakh'iFuture platform and with internationally based IYF on PTS) will further enhance and facilitate the sustainability of these initiatives.
- The signed partnership agreements between the UNDP and partners such as the DHET and TSAM are expected to provide financial sustainability for the project.
- The high political profile that the project has enjoyed (from both the South African Government and the Japanese Government as the project funder) has placed much-needed focus on the TVET college sector and its challenges and constraints and should serve to enhance the sustainability of the project and increase the likelihood that it be continued and expanded to more TVET colleges in future.
- All stakeholders consulted indicated a willingness to continue on subsequent phases of this project because they see the value of its potential impact on youth and women unemployment and, having been an integral part of this pilot, they are better prepared to deliver on outputs in quicker timeframes.
- As an example of the above, the TSAM commits to continuing the refurbishment of workshops through the supply of equipment, machinery and tools. Importantly, it provides workplace learning for 700 learners every year. This is a best-practice sustainability model and it is advised that other employers visit the TSAM to learn from its implementation too.

"We have expressed our intention to continue the relationship even though it is fragile due to the challenges that Coastal KZN is facing. The college is currently under administration ..."

Threats to sustainability:

- The DHET is one of the key champions of this project and has committed itself to continue with lecturer development and support. However, if it does not re-examine and update qualifications such as the National Accredited Technical Education Diploma (NATED), which is an 18-month theoretical course followed by 18 months of experiential training, and the National Certificate Vocational (NCV), which is equivalent to a matric, this could render TVET learners under-trained and unemployable.
- If industry employers are not included in curriculum development, there will always be a mismatch between the demand and supply of automotive skills. This will result in employers seeking skills from non-TVET institutions. If occupational learning is not linked to a rapidly changing industry, the impact of TVET teaching and learning will always lose out to university education.
- Employers involved in curriculum development will alert developers about new technologies such as hybrid and self-driving cars. These are currently not being taught in any curriculum, although these vehicles are already being used in South Africa.; thus, an obvious skills gap is evident.
- Risks (such as equipment and machinery breakdowns and theft) to long-term sustainability and a continuation of benefits from the project interventions over the longer term are aspects of concern. Measures should thus be taken to ensure the security and maintenance thereof.
- A receding economy and the erratic supply of electricity threaten the viability of businesses thereby impacting the employment opportunities of current workers and new graduates.

“ This Manufacturing Operators programme needs to reduce theory and add more practicals. The programme must be six months long at least. “

“ Loadshedding caused network issues during online sessions but on the technical training there was no challenge. ”

5.7 CROSS-CUTTING ISSUES

The evaluation was sensitive to vulnerable groups (youth and women). The evaluation focused on cross-cutting issues around gender equality and location factors. As the project beneficiaries did not include disabled learners or lecturers, this cross-cutting issue could not be explored.

5.7.1 Relevance in terms of contributing to gender equality and the empowerment of women and other vulnerable groups.

- The automotive sector is predominantly male-dominated. This was confirmed by industry stakeholders and by the low enrolment figures in the Automotive Faculties of the participating TVET colleges. There have however been deliberate attempts to recruit more women into the sector. According to project documents, 41% of the ODWPP course registrations were women.
- Evidence of the participation of women in this sector is corroborated by the number of female respondents who took part in the survey (Figure 8).

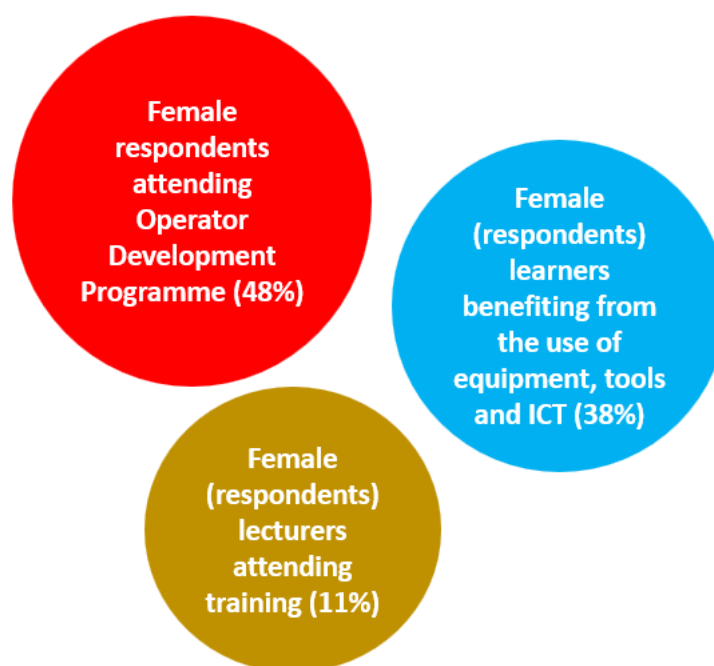


Figure 8: Female respondents' participation in the project evaluation

- The project's focus on gender parity did indeed level the playing field. The DHET indicated that 80% of new registrations in electrical engineering and electronics courses were women and this was a result of the sector introducing more ICT-based work, hence, gender is no longer a barrier for women to enter the automotive sector. The relevance of this project is further enhanced because the selection of women and youth residing in non-urban areas for the ODWPP was intentional, as reported by Harambee in its final close-out presentation.
- All the beneficiaries who benefited from the use of workshop equipment in Coastal KZN TVET College and Northlink TVET College were youth.
- More than 80% of the ODWPP's beneficiaries come from the township and/or rural locations.
- Of all the stakeholders who participated in the evaluation, 32.7% were women.

6. CONCLUSIONS

Overall, the project was implemented efficiently and effectively. The intended aim and objectives of increasing the economic empowerment of vulnerable women and youth, strengthening the capacity of TVET colleges to align with the post-COVID-19 economy and labour market needs and strengthening the connection between TVET college graduates and employment opportunities have been achieved within the timeframe. However, there were challenges. The timeframe for implementation was too short, resulting in the insufficient time lag between lecturer training and learners not having had enough time to interact with the new equipment at the time of evaluation. Table 16 presents the evaluation conclusions.

Table 16: Evaluation conclusions

OECD - DAC criteria	Conclusions
Relevance	<ul style="list-style-type: none"> The project is relevant to the country's priorities of addressing poverty, inequality and unemployment. The project design is appropriate for achieving the desired results; however, the project was implemented without a written TOC.
Coherence	<ul style="list-style-type: none"> The project is coherent with the South African government's policies and strategy of fighting the triple challenges of poverty, unemployment and inequality, especially when focusing on marginalised groups such as youth and women. The project is in line with the priorities of the NDP in placing women and youth at the centre of developing the economy. This project also fits well into the SAAMP 2035 which has identified future industry needs in terms of technology and associated skills as one of its eight focus areas during the lead-up to 2035. Finally, the TVET project fits well into the NSDP 2030 whose vision is to create a skilled and capable workforce for South Africa.
Effectiveness	<ul style="list-style-type: none"> The project design was effective in achieving all the five key project activities that were implemented during the duration of the project While the majority of the planned targets were met, the youth upskilling target was not attained due to the ambitiously high targets set during the conception phase.
Efficiency	<ul style="list-style-type: none"> Project management was very good despite limitations in available human and time resources. The fact that all the project interventions could be implemented in the very short timeframe of just over one year (from March 2021 to June 2022) and despite the negative impacts of the COVID-19 pandemic is remarkable. Using the UNDP to procure equipment and services for and on behalf of the three TVET beneficiary colleges enhanced the efficiency and cost-effectiveness of the procurement process significantly; as goods were procured on a larger scale, bargaining power to procure items at reduced unit costs (economies of scale) was created.

OECD - DAC criteria	Conclusions
	<ul style="list-style-type: none"> The project was implemented within the approved budget and all equipment budgeted for was procured without any overruns.
Impact	<ul style="list-style-type: none"> Sufficient time has not yet elapsed to establish the long-term impact and effects that the project and its interventions have had or will have on its beneficiaries. The increased capacity should benefit these colleges and their learners for a period of at least five years (the estimated lifespan of ICT equipment) and will help them to better cope with blended training methods in response to the changing training environment challenges created by COVID-19. This project allowed the marketing of the SAYouth and other workplace readiness platforms such as Harambee and Yakh'iFuture.
Sustainability	<ul style="list-style-type: none"> The project and its various interventions were needs-based (needs identified, verified and prioritised during the Rapid Needs Assessment process). This needs-based approach is one of the most important reasons why the interventions should be sustainable over the medium to longer term. Potential risks to long-term sustainability and a continuation of benefits from the project interventions over the longer term include equipment and machinery maintenance, breakdowns and theft. Partnerships with industry partners such as TSAM will ensure continued sustainability for Coastal KZN TVET College and partnerships with other partners, such as JICA in Northlink and TSC, will also go a long way to safeguard sustainability. Signed partnerships between the UNDP and partners such as the DHET and TSAM are expected to provide financial sustainability for the project. For the effective sustainability of the TVET college automotive training programme, there needs to be iterative consultation between the DHET and the industry to maintain curriculum relevance.
Cross-cutting issues	<ul style="list-style-type: none"> The project benefited marginalised groups of youth and women, however, there was no record of disabled learners being actively recruited into the programme. This project contributed to mainstreaming women into a predominantly male-dominated sector. The project intentionally sought the participation of peri-urban and rural learners in their training interventions.

7. RECOMMENDATIONS

The United Nations Evaluation Group defines evaluation recommendations as “proposals aimed at enhancing the effectiveness, efficiency, impact, relevance, sustainability, coherence, added value or coverage of the project under evaluation”. A further key guideline is to focus recommendations on actions that fall within the control of intended users and which are implementable. In terms of the above guidelines, the recommendations presented in Table 17 were selected as the key recommendations for the UNDP and DHET.

Table 17: Actionable recommendations with timelines

No.	Recommendation	Responsible units	Timeframe
1	<p>That the project be expanded to include more TVET colleges in peri-urban and rural areas.</p> <p><u>Rationale:</u></p> <p>Improving the capacity of TVET colleges to render better quality teaching and learning to under-serviced communities.</p>	<p>DHET</p> <p><u>Actionable steps:</u></p> <p>Allocate funds to increase the national span of the project.</p>	<p>Funding is secured at least 1 year before the project begins.</p>
		<p>Select TVET colleges for future phases favouring peri-urban and rural TVET colleges.</p>	<p>By November of each year.</p>
2	<p>That the project be expanded to TVET colleges located near established automotive industries.</p> <p><u>Rationale:</u></p> <p>Enhanced linkages between TVET colleges and the automotive industry to benefit local economic development and facilitate workplace training and employment opportunities.</p>	<p>DHET</p> <p><u>Actionable steps:</u></p> <p>Allocate funds to increase the national span of the project.</p>	<p>Funding is secured at least 1 year before the project begins.</p>
		<p>Select TVET colleges for future phases in proximity to the automotive industries.</p>	<p>By November of each year.</p>
3	<p>That the technical and soft skills aspects of the curriculum be updated with input from the automotive industry.</p> <p><u>Rationale:</u></p> <p>The automotive industry highlighted the outdated curriculum that is not aligned with their needs resulting in an inappropriate supply of skilled labour.</p>	<p>DHET and the Automotive Industry</p> <p><u>Actionable steps:</u></p> <p>Set up a panel comprised of academics, experts and industry employers to review and update NATED and NCV programmes.</p>	<p>A panel established within 6 months.</p>
		<p>Develop a new curriculum.</p>	<p>New curriculum developed within 2 years.</p>
		<p>Institute new curriculum in TVET colleges.</p>	<p>New curriculum instituted within a year of adoption.</p>

No.	Recommendation	Responsible units	Timeframe
4	<p>That UNDP staff capacity be increased if the scope of the project is increased.</p> <p><u>Rationale:</u> The current UNDP staff complement was insufficient for the size and scope of the workload. While the current team was competent and accomplished most targets, this may not be replicated should the scope of future phases increase; additional staff will be essential.</p>	<p>UNDP</p> <p><u>Actionable steps</u> Recruit two additional project management staff members.</p>	<p>At least 4 months before implementation.</p>
5	<p>That the SAYouth employment platform be actively marketed to TVET college learners.</p> <p><u>Rationale:</u> TVET colleges have a low registration on this employment website.</p>	<p>TVET colleges</p> <p><u>Actionable step:</u> Market the existence of the SAYouth platform and encourage NEETs to register on it to access information and opportunities available for employment.</p>	<p>Ongoing for the full duration of the project.</p>
6	<p>That the Yakh'iFuture platform be actively marketed, maintained and regularly updated.</p> <p><u>Rationale:</u> It is a useful learning resource for learners who are interested in careers in the automotive industry. This platform could be supplementary for youth with limited opportunities to gain practical training through access to simulations and videos.</p>	<p>NAACAM</p> <p><u>Actionable step:</u> Market the existence of the Yakh'iFuture platform and encourage learners to utilise it to access information and supplementary training material.</p>	<p>Ongoing for the full duration of the project.</p>
7	<p>That the TVET colleges make long-term maintenance contracts with suppliers for equipment and machinery beyond the warranties.</p> <p><u>Rationale:</u> Breakages and machinery downtime are threats to the sustainability of the project and the risk needs to be managed.</p>	<p>TVET colleges and equipment suppliers</p> <p><u>Actionable steps:</u> TVET college to institute maintenance contracts. Ensure that TVET colleges' insurance policies are in place and include risk cover for theft and breakages of expensive machinery.</p>	<p>On Purchase and delivery.</p>

8. LESSONS LEARNT

This section of the evaluation describes the most important lessons learnt in the project and identifies a list of good practices that could be replicated and implemented in possible future implementation and roll-out at other TVET colleges. It also identifies weaknesses and mistakes made in the project with recommendations on how to avoid such in future projects. The most pertinent lessons learnt are the following:

- The Rapid Needs Assessment that informed the specifications of the technologies and equipment and the areas of the lecturer training enabled the successful implementation of the project.
- The mixed approach through the equipment provision and lecturer training proved to be effective in maximising the capacity of the colleges for modern teaching and learning.
- Working with partners with expertise and existing initiatives, such as Harambee, IYF, and NAACAM, enhanced the efficiency of product development and service delivery significantly. Similarly, selecting strong and capable service providers and suppliers ensured that good quality products and services were delivered within relatively short periods. This approach should be replicated.
- The central coordination and procurement of goods and services (by the UNDP) was widely applauded and proclaimed by stakeholders as one of the strengths and success factors of the project enhancing both cost-effectiveness and efficiency.
- The perceived value of lecturer training should be determined by its recognition for continuous professional development. Future interventions are encouraged to work with the DHET, QCTO, SACE and SETAs to recognise lecturer training courses for continuous professional development.
- TVET college management should be part of the training so that they can fully support what happens in the classroom and in the industry too.
- In emergency relief, it is important to exercise convening power to pull technical partners and stakeholders together to successfully respond to emergencies.
- Early engagement with partners in the design and planning stage of projects is important for leveraging their experience and accelerating implementation, particularly in emergency responses.
- Even in emergency relief, planning activities (training) during the holiday season should be avoided as most partners' businesses are slow or closed.
- The selection of multiple suppliers could enable the timely delivery and installation of equipment for emergency response projects.

REFERENCES

- Creswell, J., & Creswell, D.J. (2018). *Research Design: Qualitative, Quantitative and Mixed Methods Approaches* (5th ed). California: SAGE Publications
- Department of Higher Education and Training (DHET). (2019). *National Skills Development Plan 2030*. <https://www.merseta.org.za/wp-content/uploads/2021/04/Promulgation-of-the-National-Skills-Development-Plan.pdf>
- Department of Trade, Industry and Competition (DTI). (2021). *South Africa Automotive Master Plan*. http://www.thedtic.gov.za/wp-content/uploads/Auto_Master_Plan.pdf
- Department of Women, Youth and Persons with Disability (DWYPD). (2019). *National Youth Policy 2020–2030*. https://www.gov.za/sites/default/files/gcis_document/202103/nationalyouthpolicy.pdf
- Department of Women, Youth and Persons with Disability (DWYPD). (2020). *National Youth Development Agency: Strategic Plan 2020–2025*. <http://www.nyda.gov.za/Portals/0/downloads/FINAL%20APPROVED%205-YEAR%20NYDA%20STRATEGIC%20PLAN%202020-2025.pdf>
- International Labour Organisation (ILO). (2018). *Skills policies and systems for a future workforce*. https://www.ilo.org/wcmsp5/groups/public/---dgreports/---cabinet/documents/publication/wcms_618170.pdf
- Jubane, M. (2021). Strategies for reducing youth unemployment in South Africa. *Proceedings of the World Conference on Children and Youth*, 2(1), 1-11. <https://doi.org/10.17501/26731037.2020.2101>
- OECD-DAC. (2019). *Better criteria for better evaluation*. OECD-DAC Network on Development Evaluation. <https://www.oecd.org/dac/evaluation/revised-evaluation-criteria-dec-2019.pdf>
- National Planning Commission. (2011). *National Development Plan: Vision for 2030*. https://www.gov.za/sites/default/files/gcis_document/201409/devplan2.pdf
- United Nations. (2015). *Sustainable development goals*. <https://sdgs.un.org/goals>
- United Nations. (2022). *UN sustainable development cooperation framework (UNSDCF) South Africa 2020–2025*. <https://southafrica.un.org/en/180728-united-nations-sustainable-development-cooperation-framework-unsdcf-south-africa-2020-2025>
- United Nations Development Programme (UNDP). (2020). *Country programme document for South Africa (2020–2025)*. <https://www.unfpa.org/south-africa-cpd-2020-2025-dpfpcpdzaf5>
- United Nations Development Programme (UNDP). (2021). *Evaluation guidelines*. <http://web.undp.org/evaluation/guideline/>
- United Nations Development Programme (UNDP). (2022). *UNDP Strategic Plan: 2022–2025*. <https://www.undp.org/ghana/publications/undp-strategic-plan2022-2025>
- Urban-Econ: Nikela. (2021). *Rapid needs assessment on TVET colleges in the post-COVID economy and strengthening ties to the automotive industry labour market: Final report*.

ANNEXURES

ANNEXURE 1: EVALUATION MATRIX

ANNEXURE 2: DATA COLLECTION INSTRUMENTS

ANNEXURE 3: LIST OF INDIVIDUALS OR GROUPS CONSULTED