



**THE REPUBLIC OF UGANDA**  
**Ministry of Education and Sports**

**Directorate of Industrial Training**



**Assessment and Training  
Package  
For a  
COFFEE FARMER**

**Qualification Level: 1**

**Occupational Cluster: Agriculture**

**August 2020**

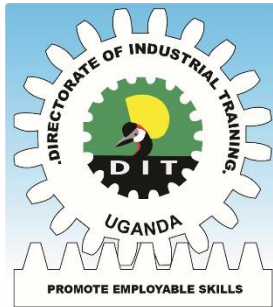
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**Developed by:**

**Directorate of Industrial Training  
Qualification Standards Department**

**Funded by:**

**Government of Uganda**



# **Assessment and Training Package**

**For a**

**COFFEE FARMER**

**Qualification Level: 1**

**Occupational Cluster: Agriculture**

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Under BVET Act, 2008, the functions of the Directorate of Industrial Training are:

- (a) To identify the needs of the labour market for occupational competencies that fall under the UVQF.
- (b) To regulate apprenticeship schemes.
- (c) To foster and promote entrepreneurial values and skills, as an integral part of the UVQF.
- (d) To secure adequate and sustainable financing for the efficient operations of the Directorate.
- (e) To accredit training institutions or companies as assessment centres.
- (f) To determine fees payable under the Act.
- (g) To develop, apply, expand and improve the purposeful application of Uganda vocational qualifications defined in the UVQF.
- (h) To assess and award Uganda Vocational Qualifications.
- (i) To promote on-the-job training in industry for apprenticeship, traineeship and indenture training and for other training such as further skills training and upgrading.
- (j) To prescribe the procedure for the making of training schemes.

Further to the above provisions, there is an established Uganda Vocational Qualifications Framework (UVQF), under part V of the BVET Act, 2008. It is stated that:

The purpose of the UVQF is to;

- (a) Define occupational standards in the world of work.
- (b) Define assessment standards.
- (c) Award vocational qualifications of learners who meet the set standards of different studies.
- (d) Provide guidelines for modular training.

The UVQF shall follow principles of Competence Based Education and Training (CBET) which include:

- (a) Flexible training or learning modules.
- (b) Positive assessment and Certification.
- (c) Assessment of Prior Learning.
- (d) Recognition of formal and non-formal training.
- (e) Self-paced or individual learning.
- (f) Work place learning.

For award and recognition of certificates, the BTVET Act, 2008 provides that:

- (1) The Directorate and other examination boards established under the Act shall award certificates and diplomas for Business, Technical or Vocational Education and Training under the UVQF.
- (2) The Certificates and Diplomas to be awarded shall be in the form prescribed by the Minister on the recommendation of the Industrial Training Council.
- (3) The Certificates and Diplomas awarded under the Act shall be recognised in the Uganda education system and by the labour market.

Under the TVET Implementation Standards 2020, the proposed new mandate of the Directorate of Industrial Training shall be restricted to promoting the highest standards in the quality and efficiency of industrial training in the country and ensuring an adequate supply of properly trained manpower at all levels in the industry and the world of work.

The functions shall include:

- (a) Regulating Industrial Training and Trainers.
- (b) Developing Industrial Training Curricula.
- (c) Harmonising Curricula and Certificates of competence.
- (d) Assessing Industrial Training.
- (e) Development of Occupational Standards and Assessment and Training Packages (ATPs) for Trade Testing for the industry and world of work.
- (f) Awarding certificates in that respect.

At operational level in the Directorate, the Qualification Standards Department performs development tasks related to concepts, procedures and instruments for establishment of the UVQF in close collaboration with both public and private stakeholders in vocational training.

In particular, the Department organises and coordinates the development of Assessment and Training Packages for use in competence-based vocational training as well as standards-based assessment and certification.

The Directorate has therefore produced this Assessment and Training Package for use in implementing Competence-Based Education and Training mechanisms.

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## **Word from Permanent Secretary**

The Kajubi Report (1989) and the Uganda Government White Paper on Education Review (1992) emphasised that the Uganda Secondary School Education should be vocationalised.

The World Bank Report on education in Uganda 2007 observed that although Uganda was experiencing steady economic growth on one hand, the secondary education curriculum was inadequately addressing the social and economic needs of the country on the other. The Report further noted that it is not the very top academic cadres that contribute most to the growth of the GDP but rather the competent middle level technicians that are flexible and technologically literate that the economy needs in the labour market at all levels.

Correspondingly, the NDP III 2020/21- 2024/5 highlights (i) low labour productivity (ii) high youth unemployment (38%) (iii) low transition rates from training to employment (35%) as some of the key challenges to Human Capital Development in Uganda.

In order to overcome these challenges, NDP III 2020/21- 2024/5, under objective 2 peaks the need to train the learners for the urgently needed skills and mainstream a dual education and training system. This paved way for the development of the lower secondary school vocational curriculum which supports both academic and vocational training.

The afore is in line with the Uganda Vision 2040. Under section 261, it emphasises that learners will be accorded opportunities to excel in the skills areas they are placed into. These will range from sports and cut to technical and vocational training. Hitherto, section 262 clearly states that the entire education system will be changed to emphasise practical skills, attitude and moral values.

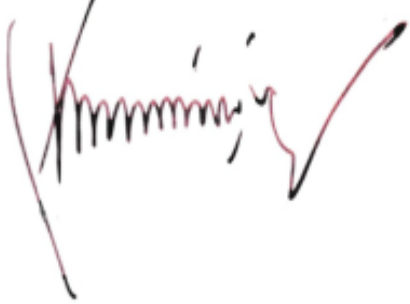
Government of Uganda through the Ministry of Education and Sports rolled out the New Lower Secondary Curriculum in secondary schools countrywide during the first term of the academic year 2020. The overall goal of this curriculum is to produce graduates with employable skills and who are competitive in the labour market. It should be emphasised that vocational training will produce graduates who are employable. In the New curriculum, emphasis will be on equipping learners with employable skills and competencies. This will enable learners perform the requisite duties of the specified occupations. This is the reason why the lower secondary school vocational curriculum was tailored to the assessment requirements of the world of work.

Reading from the Curriculum Framework page 12, it is stated that the learners will be assessed by DIT. Upon assessment and certification, the graduates will be employable and competitive in the labour market. It's against this background that DIT, within its mandate vested in the BTVET Act, 2008 comes on board to take the lead in the development of the requisite Assessment and Training Packages (ATPs) for the various occupations that will be assessed under the Lower Secondary Curriculum.

The ATPs can be used by any training provider and/or those who wish to present themselves for Occupational Assessment and Certification.

Herewith, the Directorate of Industrial Training presents the Assessment and Training Package for training, assessment and certification of a **COFFEE FARMER QUALIFICATION LEVEL 1.**

Finally, I thank all individuals, organisations and review partners who have contributed and/or participated in the review of this noble document.



**Alex Kakooza**  
**Permanent Secretary**



## Executive Summary

This Assessment and Training Package is a Competence-Based Education and Training (CBET) tool and consists of three major parts:

- 0.1 **PART I: The Occupational Profile (OP) of a COFFEE FARMER.** This Occupational Profile which was reviewed by Coffee farmers practicing in the world of work mirrors the duties and tasks that Coffee farmers are expected to perform.
- 0.2 **PART II: Training Modules** in the form of guidelines to train Coffee farmers both on the job as well as in training centres (or combinations of both venues of learning). The Training Modules herein have been reviewed basing on the Occupational Profile and hence are directly relevant for employment.
- 0.3 **PART III: Assessment Instruments** in the form of performance (Practical) and written (theory) test items that can and should be used to assess whether a person complies with the requirements of employment as a COFFEE FARMER. These assessment instruments were reviewed jointly by job practitioners (Coffee farmers) and instructors based on the occupational profile and training modules.
- 0.4 While the Occupational Profile (OP) contained in PART I of this document provides the information on **WHAT a person is expected to do** competently in the world of work, the test items, - including performance criteria- of PART III qualify the **HOW and/or HOW WELL a person must do the job.**
- 0.5 The modular format of the curriculum (PART II) allows learners to acquire job specific skills and knowledge (i.e. competencies) module by module. A single module can be accomplished within a relatively short duration allowing flexibility for learners to move directly into an entry level job, go for further modules or advance to higher levels of training. Modular courses allow more learners to access the training system because training centres as well as companies can accommodate more learners in a given period of time.
- 0.6 In addition to improved access, equity and relevance of BTVET, the UVQF will also enable people who are convinced to have acquired competencies laid down in this ATP through prior training and on-the-job experience to access assessment and certification directly; be it on the basis of a single module, a group of modules or all modules pertaining to the occupation at once. This achievement will facilitate Recognition of Prior Learning (RPL).

0.7 The parts of this Assessment and Training Package were sequentially reviewed as follows:

- i Part 1: Occupational Profile: **August 2020**
- ii Part 2: Training Modules: **August 2020**
- iii Part 3: Assessment Instruments (initial bank): **August 2020**

This ATP (or parts of it) may be periodically revised to match the dynamic trends in the occupation and hence issued in different versions.

DIT takes responsibility of any shortcomings that might be identified in this publication and welcomes suggestions for effectively addressing the inadequacies. The suggestion can be communicated to DIT through P.O. Box 20050, Kampala or through email [uvaf.dit@gmail.com](mailto:uvaf.dit@gmail.com).



**Patrick Byakatonda**  
**Ag Director**

## **Acknowledgement**

The Qualifications Standards Department of DIT acknowledges the valuable contributions to the review of this Assessment and Training Package by the following persons, Institutions and organisations:

- Members of the DIT Industrial Training Council.
- The Director and staff of DIT.
- Ministry of Education and Sports.
- The practitioners from the world of work.
- Teachers and instructors of Coffee farming from various secondary schools.
- Agriculture Curriculum Specialists from NCDC.
- Examination specialists from UNEB.
- The facilitators involved in guiding the development panels in their activities.
- The Government of Uganda for financing the development of this ATP.

## Abbreviations and Acronyms

A&C	Assessment and Certification
ATP	Assessment and Training Package
CBET	Competency Based Education and Training
DIT	Directorate of Industrial Training
ITC	Industrial Training Council
GoU	Government of Uganda
LWA	Learning-Working Assignment
MC	Modular Curriculum
MoES	Ministry of Education and Sports
OP	Occupational Profile
PEX	Practical Exercise
PTI	Performance (Practical) Test Item
QS	Qualification Standards
RPL	Recognition of Prior Learning
TIB	Test Item Bank
TVET	Technical, Vocational, Education and Training
UVQ	Uganda Vocational Qualification
UVQF	Uganda Vocational Qualifications Framework
WTI	Written (Theory) Test Item

## Key Definitions

<b>Assessment</b>	Assessment is the means by which evidence is gathered and judged to decide if an individual has met the stipulated assessment standards or not. Testing is a form of formal assessment.
<b>Certification</b>	Certification is a formal procedure to issue a certificate (qualification) to an individual that has demonstrated during formal assessment that he/she is competent to perform the tasks specified in the occupational profile.
<b>Competence</b>	Integration of skills, knowledge, attitudes, attributes and expertise in doing /performing tasks in the world of work to a set standard.
<b>Competency</b>	(Occupational) competency is understood as the ability to perform tasks common to an occupation to a set standard.
<b>CBET</b>	Competence-Based Education and Training means that programmes: <ol style="list-style-type: none"><li>1. have content directly related to work</li><li>2. focus is on 'doing something well'</li><li>3. assessment is based upon industry work standards, and</li><li>4. curricula are developed in modular form</li></ol>
<b>Duty</b>	A Duty describes a large area of work in performance terms. A duty serves as a title for a cluster of related Tasks (see also: TASK).
<b>Learning-Working Assignment (LWA)</b>	LWA are simulated or real job situations / assignments that are suitable for learning in a training environment (e.g. "small projects"). In a working environment LWAs are real work situations /assignments.
<b>Modules</b>	Modules are part(s) of a curriculum. Modules can be considered as "self-contained" partial qualifications which are described by learning outcomes or competencies and which can be assessed and certified individually.
<b>Occupational Profile (OP)</b>	<p>An Occupational Profile is an overview of the duties and tasks a job incumbent is expected to perform competently in employment.</p> <p>Occupational Profiles developed by practitioners from the world of work enhance the relevance of training and learning to the requirements of the world of work.</p>

Occupational Profiles define what a person is supposed to do in performance terms. It also contains generic information regarding related knowledge and skills, attitudes/behavior, tools, materials and equipment required to perform as well as trends/ concerns in the occupation.

Occupational profiles are the reference points for developing modular curricular and assessment standards.

**Qualification** A qualification is a formal recognition for demonstrating competence, based on formal assessment against set standards. A qualification is provided to the individual in form of a certificate specifying the nature of the competence.

**Task** Job tasks represent the smallest unit of job activities with a meaningful outcome. Tasks result in a product, service, or decision. They represent an assignable unit of work and have a definite beginning and ending point. Tasks can be observed and measured. (*Also see: Duty*)

## 1.0 ATP-PART I

### Occupational Profile for a COFFEE FARMER

- 1.1 The OCCUPATIONAL PROFILE (OP) for “COFFEE FARMER” below defines the **Duties** and **Tasks** a competent COFFEE FARMER is expected to perform in the world of work (on the job) in Uganda and the East African region today.
- 1.2 Since it reflects the skill requirements of work life, the Occupational Profile is the reference document for the subsequent development of training modules and assessment instruments (test items) which are directly relevant to employment in Ugandan and the East African businesses and industries.
- 1.3 To ensure that the Occupational Profile is relevant for employment in Uganda and East Africa, the DIT used the method of “occupational/job profiling.”<sup>1</sup>

This approach involves the brainstorming of a panel of 8 to 12 competent job practitioners guided by trained and experienced facilitators. During a two-day workshop the panelists define the duties and tasks performed in employment, as well as the prerequisite skills, knowledge, attitudes, tools and equipment, and the future trends and concerns in the occupation/job.

- 1.4 The panelists, facilitators and coordinators who participated in developing this Occupational Profile are listed on the following page.

**Expert Panel**

**Robert Nangatsa**

UCDA

**Mulumba Mutema Mathias**

NCDC

**Bamuhangaine Nicodemus**

Ankole Coffee Producers Cooperative

**Jordan Bateisibwa Abaine**

Jordan Coffee Farm

**Musisi Ssebatta Joseph**

Coffee Farmer

**Mugumya Benjamin Andrew**

Coffee Farmer

**Alinaitwe Jonan**

Coffee farmer

**Turyakira Haruna**

Haruna &Nuriat Coffee

**James Namara**

Ntugamo Integrated Farm and  
Demonstration Centre

**Napunyi Patrick**

Masaka ss (UNEB Examiner)

**Kataba Abu Juma**

Buzaaya Growers Cooperative Union

**Julius Mayeku**

Coffee Farmer

**Atim Mikali**

Teso College Aloet (UNEB Examiner)

**Ssembatya Aofi**

Kassanda Farmers Association

**Kintu Joseph**

Coffee Farmer

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**Aheebwa Joan**

Directorate of Industrial Training

**Kusasira Agnes**

Directorate of Industrial Training

**Co-ordinator**

**Mukyala Ruth Elizabeth**

Directorate of Industrial Training

**Funded by**

The Government of Uganda



**THE REPUBLIC OF UGANDA**  
**Ministry of Education and Sports**

Directorate of Industrial Training

## **Occupational Profile**

**For a**

**"COFFEE FARMER"**

**Developed by: Qualification Standards  
Department of Industrial Training**

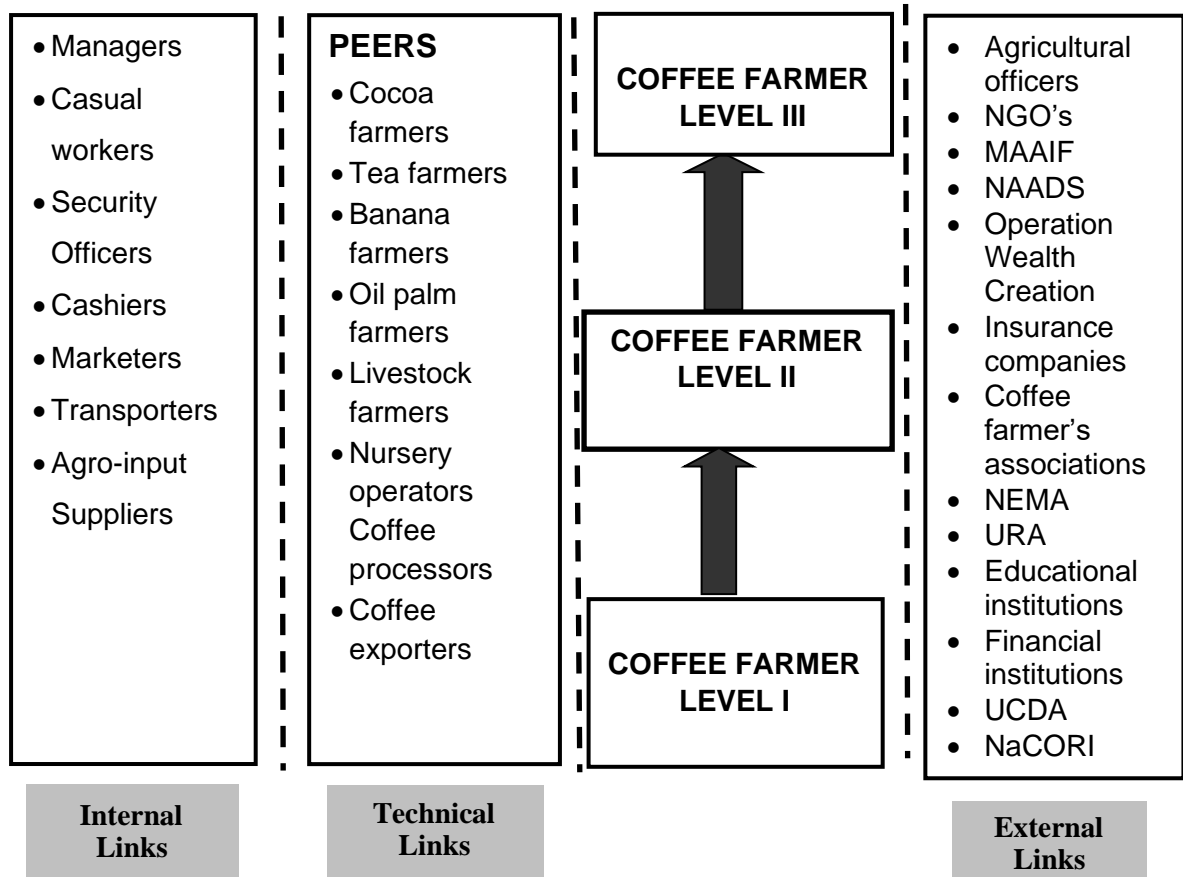
**Dates of workshop: 24<sup>th</sup>-26<sup>th</sup> August 2020**



## NOMENCLATURE FOR THE OCCUPATION OF COFFEE FARMER

**Definition:** A Coffee Farmer is a person who grows and manages coffee for commercial purposes

### JOB ORGANISATION CHART FOR A COFFEE FARMER



1. **A Level I Coffee Farmer:** is a person who grows coffee using basic coffee farming practices and hand tool technologies.
2. **A Level II Coffee Farmer:** is a person who grows selected coffee varieties using improved agronomic coffee practices and mechanised technologies.
3. **A Level III Coffee Farmer:** is a person who grows improved coffee using advanced agronomic coffee practices and technology on a large scale.

## Duties and Tasks

<b>A. PLAN COFFEE ENTERPRISE</b>	<b>A1</b> Conduct market survey	<b>A2</b> Determine farm location	<b>A3</b> Determine type of coffee
	<b>A4</b> Source coffee farm inputs	<b>A5</b> Identify labour requirements	<b>A6</b> Determine production methods
	<b>A7</b> Develop site structural plan	<b>A8</b> Prepare financial plan	<b>A9</b> Prepare procurement plan
	<b>A10</b> Prepare work schedules		

<b>B. ESTABLISH A COFFEE NURSERY</b>	<b>B1</b> Prepare land	<b>B2</b> Set up a mother garden	<b>B3</b> Erect nursery shade
	<b>B4</b> Prepare planting medium	<b>B5</b> Prepare seed bed	<b>B6</b> Prepare planting materials
	<b>B7</b> Plant seeds/ propagating materials	<b>B8</b> Harvest water	<b>B9</b> Water nursery
	<b>B10</b> Monitor seedlings/ plantlets	<b>B11</b> Prick out seedlings/ plantlets	<b>B12</b> Control pests and diseases

<b>C. ESTABLISH A COFFEE FARM</b>	<b>C1</b> Prepare coffee farm site	<b>C2</b> Perform pitting/holing	<b>C3</b> Apply fertilisers in the holes/pits
	<b>C4</b> Transport seedlings/ plantlets	<b>C5</b> Plant propagating materials (seedlings/ plantlets)	<b>C6</b> Water plants
	<b>C7</b> Shade seedlings	<b>C8</b> Plant shade trees/plants	<b>C9</b> Carryout intercropping
	<b>C10</b> Mulch garden	<b>C11</b> Plant wind break trees	<b>C12</b> Construct soil and water conservation trenches
	<b>C13</b> Erect farm structures		

<b>D. MAINTAIN A COFFEE FARM</b>	<b>D1</b> Control weeds	<b>D2</b> Train plants	<b>D3</b> Control pests and diseases
	<b>D4</b> Prune plants	<b>D5</b> Carryout gap filling/replace plants	<b>D6</b> Conserve soil fertility and moisture
	<b>D7</b> Stake plants	<b>D8</b> Carryout stumping	

<b>E. HARVEST COFFEE</b>	<b>E1</b> Identify ready coffee	<b>E2</b> Determine harvesting methods	<b>E3</b> Prepare harvesting tools and equipment
	<b>E4</b> Schedule harvesting time	<b>E5</b> Pick ready coffee	<b>E6</b> Transport coffee

<b>F. PERFORM POST HARVEST HANDLING</b>	<b>F1</b> Prepare post harvesting tools and equipment	<b>F2</b> Prepare drying beds	<b>F3</b> Sort coffee
	<b>F4</b> Pulp coffee cherries	<b>F5</b> Dry coffee	<b>F6</b> Prepare storage facilities
	<b>F7</b> Bag/pack coffee	<b>F8</b> Weigh coffee	<b>F9</b> Prepare production records
	<b>F10</b> Store coffee		

<b>G. MARKET COFFEE PRODUCTS</b>	<b>G1</b> Package coffee	<b>G2</b> Label coffee	<b>G3</b> Bulk coffee
	<b>G4</b> Price coffee products	<b>G5</b> Advertise coffee products	<b>G6</b> Communicate with buyers
	<b>G7</b> Transport coffee products	<b>G8</b> Sell coffee products	

<b>H. PERFORM OCCUPATIONAL HEALTH SAFETY AND ENVIRONMENTAL PROTECTION PRACTICES</b>	<b>H1</b> Sensitise workers on key health issues	<b>H2</b> Train workers on health and safety measures	<b>H3</b> Display safety signs
	<b>H4</b> Wear protective gear	<b>H5</b> Manage waste	<b>H6</b> Administer first aid
	<b>H7</b> Store agro chemicals	<b>H8</b> Observe OHSE rules and regulations	<b>H9</b> Perform fire fighting

<b>I. PERFORM ADMINSTRATIVE TASKS</b>	<b>11</b> Recruit workers	<b>12</b> Train workers	<b>13</b> Register business
	<b>14</b> Supervise workers	<b>15</b> Remunerate workers	<b>16</b> Motivate workers
	<b>17</b> Keep records	<b>18</b> Attend meetings	<b>19</b> Procure farm inputs
	<b>110</b> Pay taxes and bills		

## Additional Information

### Generic Knowledge and Skills

- |  |  |
|--|--|
| 1. Qualities of a good site                    | 20. Procurement skills                 |
| 2. Soil fertility                              | 21. Farm regulations                   |
| 3. Quality of water to be used                 | 22. Propagation techniques             |
| 4. Dimensions and measurements                 | 23. Human resource management          |
| 5. Fertiliser types and application techniques | 24. Communication skills               |
| 6. Potting techniques                          | 25. Human relations skills             |
| 7. Cloning techniques                          | 26. Training and supervisory skills    |
| 8. Pruning techniques                          | 27. Marketing skills                   |
| 9. Coffee harvesting techniques                | 28. Creativity                         |
| 10. Safe transportation of coffee              | 29. Critical thinking                  |
| 11. Coffee storage                             | 30. Sowing seeds                       |
| 12. Drying methods                             | 31. Self-evaluation                    |
| 13. Tools and equipment usage                  | 32. Computer knowledge and skills      |
| 14. Characteristics of quality coffee          | 33. Innovation                         |
| 15. Use of coffee                              | 34. Market demand                      |
| 16. Weeding methods and techniques             | 35. Time management                    |
| 17. Problem solving skills                     | 36. Skills of marketing shade          |
| 18. Coffee bills and acts                      | 37. Watering skills                    |
| 19. Government regulations                     | 38. Planting and transporting skills   |
|  | 39. Methods of applying chemicals      |
|  | 40. Types of chemicals and application |
|  | 41. Stake heavy high productive plants |

### Tools, Materials and Equipment

- |                      |                        |
|----------------------|------------------------|
| 1. Stationery        | 47. Soil auger         |
| 2. Hoe               | 48. Bill boards        |
| 3. Spade             | 49. Soil PH kit        |
| 4. Wheelbarrow       | 50. Soil test reagents |
| 5. Slasher           | 51. Moisture meter     |
| 6. Axe               | 52. Water pumps        |
| 7. Panga             | 53. Pipes              |
| 8. Measuring tape    | 54. Pulps              |
| 9. Rope              | 55. Hallers            |
| 10. Hammer           | 56. Fermenting tanks   |
| 11. Pick axe         | 57. Pallets            |
| 12. Rake             | 58. Ladders            |
| 13. Watering can     | 59. Sand               |
| 14. Bucket           | 60. Cement             |
| 15. Scissor          | 61. Bricks and blocks  |
| 16. Sign post        | 62. Furniture          |
| 17. Jerrycan         | 63. Disposable pits    |
| 18. Tarpaulin        | 64. Nettings           |
| 19. Secateurs        | 65. Mulches            |
| 20. Knapsack sprayer | 66. Seedlings          |
| 21. Gum boots        | 67. Rooting hormones   |
| 22. Gloves           | 68. Sorting table      |
|                      | 69. Poles              |

23. Weighing scale	70. Wire strains
24. Bags	71. Pliers
25. Over all	72. Shade nets
26. Masks	73. Iron sheets
27. Pruning saw	74. Aggregate/stones
28. Hack saw	75. Polythene sheet
29. Tractors	76. Drainage channels
30. Plough	77. Sampling spear
31. Trailer	78. Notice board
32. Trucks	79. Water colours
33. Bicycles	80. Driplines
34. Detergents	81. Mobile phones
35. Herbicides	82. Computers
36. Pesticides	83. Radio
37. Paint	84. Television
38. Nails	85. Trunks
39. Barbed wires	86. Timber
40. Fertilisers	87. Calculators
41. Seeds	88. First aid kit
42. Trowel	89. Fire extinguishers
43. Spirit level	90. Helmet
44. Square	91. Sanitisers
45. Garden forks	92. Thermometer
46. Sickle	93. Basket

**Attitudes / Traits / Behavior**

1. Caries out SWOT analysis	18. Hard working
2. Carries out conflict resolution	19. Resourceful
3. Organised	20. Good listener
4. Respectful	21. Result oriented
5. Trustworthy	22. Trainable
6. Team player	23. Strategic
7. Dedicated	24. Empathetic
8. Self-motivated	25. Active
9. Punctual/time manager	26. Flexible
10. Self-driven	27. Researcher
11. Innovative and creative	28. Risk taker/risk averse
12. Enthusiastic	29. Dynamic
13. Disciplined	30. Leader
14. Social	31. Patient
15. Realistic	32. Tolerant
16. God fearing	33. Proactive
17. Honest	

### **Future Trends and concerns**

1. Expansion of market
2. Value addition
3. Expansion of production
4. Climate changes
5. Use of computer
6. Land tenure system
7. Technological advancements
8. Adaption of new technology
9. Environmental degradation
10. Exportation
11. Price fluctuations
12. Access to finances
13. Financial literacy
14. Managing growth
15. Managing succession
16. Labour availability
17. Access to experts
18. Access to policies and Acts
19. Policy awareness
20. High taxation
21. Unfavourable government policies
22. Land conflicts
23. Security
24. Population growth trends
25. Domestic consumption
26. Irrigation
27. Political instabilities
28. Specialty markets
29. Pests and disease out break
30. Synthetic coffee products
31. Social practices
32. Child labour
33. Counterfeit agro inputs
34. Encourage coffee farmers to join national associations

## **2.0 ATP – PART II**

### **Training Modules for a COFFEE FARMER**

- 2.1 A curriculum is a “guide /plan for teaching and learning” which provides a guide to teachers, instructors and learners. In the envisaged system of competence-based or outcome-oriented education and training (CBET), Curricula are no longer the benchmark against which assessment is conducted. It is rather the Occupational Profile that provides the benchmark for curriculum development as well as assessment.
- 2.2 This modular format of the curriculum allows learners of Coffee farming occupation to acquire job specific skills and knowledge (i.e. competencies) module by module. A single module can be accomplished within a relatively short duration allowing learners to move directly into an entry level job, do further modules and advance to higher levels of training. Modular courses allow more learners to access the training system because training centres, as well as companies can accommodate more students in a given period of time.
- 2.3 The modules were developed jointly by both instructors and job practitioners. They were developed using the Occupational Profile as a reference point and taking into account the specifications of training and learning outcomes.
- 2.4 The modules contain “Learning-Working Assignments” (LWAs) and related “Practical Exercises” (PEXs) as key elements.

LWAs are simulated or real job situations/assignments that are suitable for learning in a training environment (e.g. “small projects”). In a working environment, LWAs are real work situations.

PEXs are therefore sub-sets of a LWA.

- 2.5 In principle, and following the philosophy of Competence-Based Education and Training (CBET), the modules can be used as a guide for learning in a training centre, at the workplace, or a combination of both.



## **WHO IS A COFFEE FARMER QUALIFICATION LEVEL 1?**

**A Level I Coffee Farmer** is a person who grows coffee using basic coffee farming practices and hand tool technologies.

### **TRAINING MODULES FOR COFFEE FARMER UVQ LEVEL 1**

Code	Module Title	Average duration	
		Contact hours	Weeks
<b>UE/CF/M1.1</b>	Establish and Maintain a Coffee Nursery	240	6
<b>UE/CF/M1.2</b>	Establish and Maintain a Coffee Farm	240	6
<b>UE/CF/M1.3</b>	Establish a Coffee Farm Enterprise	160	4
<b>UE/CF/M1.4</b>	Perform Harvesting and Post-Harvest Handling Activities	160	4
<b>Summary</b>	<b>4 Training Modules</b>	<b>20 weeks</b>	

**Note: Average duration is contact time but NOT calendar duration**

It is assumed that:

- 1 day is equivalent to 8 hours of nominal learning and
- 1 month is equivalent to 160hours of nominal learning

Information given on the average duration of training should be understood as a guideline. Quick learners may need less time than indicated or vice versa.

At completion of a module, the learner should be able to satisfactorily perform the included Learning Working Assignments, their Practical exercises and attached theoretical instructions, as the minimum exposure.

Prior to summative assessment by recognized Agencies, the users of these Modules Guides are encouraged to carefully consider continuous assessment using samples of (or similar) performance (practical) and written test items available in Part 3 of this ATP.

<b>Code</b>	<b>UE/CF/M1.1</b>
<b>Module title</b>	<b>M1.1: Establish and Maintain a Coffee Nursery</b>
<b>Related Qualification</b>	<u>Part of</u> Uganda Vocational Qualification (Coffee Farmer UVQ1)
<b>Qualification Level</b>	1
<b>Module purpose</b>	After completion of this module, the trainee shall be able to setup and maintain a coffee nursery
<b>Learning-Working Assignments (LWAs)</b>	<p><b>LWA 1/1: Prepare a Mother Garden</b>  <b>LWA 1/2: Prepare a Coffee Nursery</b>  <b>LWA 1/3: Prepare Planting Materials</b>  <b>LWA 1/4: Plant Propagation Materials</b>  <b>LWA 1/5: Erect Nursery Shade</b>  <b>LWA 1/6: Manage Seedling Bed</b>  <b>LWA 1/7: Harden off Seedlings</b>  <b>LWA 1/8: Perform Occupational Health Safety and Environmental Protection Practices</b></p> <p><b>Note:</b></p> <ol style="list-style-type: none"> <li><i>The learning exercises may be repeated until the Trainee acquires targeted competence;</i></li> <li><i>The trainer is advised to deliver relevant theoretical instruction with demonstrations as required to perform each learning working assignment.</i></li> </ol>
<b>Related Practical Exercises (PEXs)</b>	<p><b>LWA 1/1: Prepare a Mother Garden</b>                  PEX 1.1: Select site                  PEX 1.2: Select tools, equipment and materials                  PEX 1.3: Clear land                  PEX 1.4: Till land                  PEX 1.5: Dig holes                  PEX 1.6: Prepare growth medium                  PEX 1.7: Perform planting                  PEX 1.8: Back fill holes</p> <p><b>LWA 1/2: Prepare Coffee Nursery</b>                  PEX 2.1: Select site                  PEX 2.2: Select tools, equipment and materials                  PEX 2.3: Clear site                  PEX 2.4: Till site                  PEX 2.5: Take nursery bed measurements                  PEX 2.6: Prepare growth medium</p>

	<p><b>LWA 1/3: Prepare Planting Materials</b></p> <p>PEX 3.1: Select tools, equipment and materials</p> <p>PEX 3.2: Acquire seeds or cuttings</p> <p>PEX 3.3: Disinfect cuttings</p> <p>PEX 3.4: Trim cuttings</p> <p>PEX 3.5: Sort planting materials</p> <p>PEX 3.6: Soak seeds</p>
	<p><b>LWA 1/4: Plant Propagation Materials</b></p> <p>PEX 4.1: Select materials, tools and equipment</p> <p>PEX 4.2: Mix rooting medium</p> <p>PEX 4.3: Apply rooting medium</p> <p>PEX 4.4: Prepare planting media</p> <p>PEX 4.4: Pot propagation material</p> <p>PEX 4.5: Firm planting medium</p> <p>PEX 4.6: Water propagation materials</p>
	<p><b>LWA 1.5: Erect Nursery Shade</b></p> <p>PEX 5.1: Select tools, equipment and materials</p> <p>PEX 5.2: Cut poles</p> <p>PEX 5.3: Dig holes</p> <p>PEX 5.4: Treat poles</p> <p>PEX 5.5: Fix poles</p> <p>PEX 5.6: Perform roofing</p> <p>PEX 5.7: Fence nursery</p>
	<p><b>LWA 1/6: Manage Seed Bed</b></p> <p>PEX 6.1: Mulch seedbed</p> <p>PEX 6.2: Weed seed bed</p> <p>PEX 6.3: Water seedlings</p> <p>PEX 6.4: Erect humidity chamber</p> <p>PEX 6.5: Prick out seedlings</p> <p>PEX 6.6: Control pests and diseases</p>
	<p><b>LWA 1/7: Harden off seedlings</b></p> <p>PEX 7.1: Reduce shade</p> <p>PEX 7.2: Reduce watering of seedlings/plantlets</p> <p>PEX 7.3: Monitor seedlings</p>
	<p><b>LWA 1.8: Perform Occupational Health Safety and Environmental Protection Activities</b></p> <p>PEX 8.1: Wear protective gear</p> <p>PEX 8.2: Clean and disinfect tools and equipment</p> <p>PEX 8.3: Manage waste</p> <p>PEX 8.4: Sensitise workers on key health issues</p> <p>PEX 8.5: Administer first aid</p> <p>PEX 8.6: Store agrochemicals</p> <p>PEX 8.7: Perform fire fighting</p> <p>PEX 8.8: Observe OHSE rules and regulations</p>

<b>Occupational health and safety</b>	Precautions, rules and regulations on occupational health, safety and environmental protection, included in the listed related knowledge should be observed and demonstrated during LWAs and PEXs
<b>Pre-requisite modules</b>	None
<b>Related knowledge/ theory</b>	<p><i>For occupational theory suggested for instruction/ demonstration, the trainer is not limited to the outline below. In any case, related knowledge/ theory may be obtained from various recognised reference materials as appropriate:</i></p> <ul style="list-style-type: none"> <li>• Tools and equipment usage</li> <li>• Tools and equipment maintenance</li> <li>• Site selection</li> <li>• ICT knowledge</li> <li>• Water and soil conservation techniques</li> <li>• Coffee varieties</li> <li>• Coffee propagation and management</li> <li>• Pests and disease control</li> <li>• Soil fertility management</li> <li>• Storage of agro chemicals</li> <li>• Record keeping</li> <li>• Rooting medium preparation</li> <li>• First aid administration</li> <li>• Administrative skills</li> <li>• Chemical application techniques</li> <li>• Health and safety regulations</li> <li>• Waste management</li> </ul>
<b>Average duration of learning</b>	<p>240 hours (30 days) of nominal learning suggested to include:</p> <ul style="list-style-type: none"> <li>• <i>05 days of occupational theory and</i></li> <li>• <i>25 days of occupational practice</i></li> </ul>
<b>Suggestions on organisation of learning</b>	The acquisition of competencies (skills, knowledge, attitudes) described in this module may take place at a training centre or its equivalent provided all equipment and materials required for training are in place.
<b>Assessment</b>	Assessment to be conducted according to established regulations by a recognised assessment body using related practical and written test items from item bank.
<b>Minimum required tools/ equipment/ implements or equivalent</b>	secateurs, hoe, spade, trowel, panga, slasher, soil sieve net, wheelbarrows, protective gear, watering cans, buckets, knapsack sprayer, hammer, measuring tapes, ropes, bicycle, jerrycan, calculator, reserve tanks, fire extinguisher, first aid kit

<b>Minimum required materials and consumables</b>	Fertiliser, pesticide, shade nets, poles, barbed wire, nails, polythene sheets, polythene bags, sanitisers/disinfectants, seeds, rooting hormone, sand, forest soil
<b>Special notes</b>	

<b>Code</b>	<b>UE/CF/M1.2</b>
<b>Module title</b>	<b>M1.2: Establish and Maintain a Coffee Farm</b>
<b>Related Qualification</b>	Part of Uganda Vocational Qualification (Coffee Farmer UVQ1)
<b>Qualification Level</b>	1
<b>Module purpose</b>	After completion of this module, the trainee shall be able to setup and maintain a coffee farm
<b>Learning-Working Assignments (LWAs)</b>	<p><b>LWA 2/1: Prepare a Coffee Farm Site</b></p> <p><b>LWA 2/2: Setup Coffee Farm</b></p> <p><b>LWA 2/3: Perform Routine Farm Management Practices</b></p> <p><b>LWA 2/4: Conserve Soil Moisture</b></p> <p><b>LWA 2/5: Control Pests and Diseases</b></p> <p><b>LWA 2/6: Perform Occupational Health, Safety and Environmental Protection Practices.</b></p> <p><b>Note:</b></p> <ol style="list-style-type: none"> <li><i>The learning exercises may be repeated until the Trainee acquires targeted competence;</i></li> <li><i>The trainer/instructor is advised to deliver relevant theoretical instruction with demonstrations as required to perform each learning working assignment.</i></li> </ol>
<b>Related Practical Exercises (PEXs)</b>	<p><b>LWA 2/1: Prepare a coffee farm site</b></p> <p>PEX 1.1: Clear site</p> <p>PEX 1.2: Make farm layout</p> <p>PEX 1.3: Till land</p> <p>PEX 1.4: Perform holing</p> <p>PEX 1.5: Apply fertilisers</p> <p>PEX 1.6: Construct trenches and contours</p> <p><b>LWA 2/2: Set Up Coffee Farm</b></p> <p>PEX 2.1: Procure seedlings/plantlets</p> <p>PEX 2.2: Transport seedlings/plantlets</p> <p>PEX 2.3: Water plants</p> <p>PEX 2.4: Plant seedlings/plantlets</p> <p>PEX 2.5: Shade seedlings/plantlets</p> <p>PEX 2.6: Mulch garden</p> <p>PEX 2.7: Carryout intercropping</p> <p>PEX 2.8: Plant shade trees</p> <p>PEX 2.9: Plant wind break trees</p> <p>PEX 2.10: Erect farm structures</p> <p><b>LWA 2/3: Perform Routine Farm Management Practices</b></p> <p>PEX 3.1: Train plants</p>

	<p>PEX 3.2: Prune coffee plants                  PEX 3.3: De-sucker plants                  PEX 3.4: Gap fill garden                  PEX 3.5: Weed garden                  PEX 3.6: Stake coffee plants                  PEX 3.7: Stump coffee plants                  PEX 3.8: Fertilise soils</p> <p><b>LWA 2/4: Conserve Soil Moisture</b>                  PEX 4.1: Mulch garden                  PEX 4.2: Plant cover crops                  PEX 4.3: Construct trenches and contours                  PEX 4.4: Water plants                  PEX 4.5: Apply manure                  PEX 4.6: Place stone lines</p> <p><b>LWA 2/5: Control Pests and Diseases</b>                  PEX 5.1: Scout coffee farm                  PEX 5.2: Uproot diseased plants                  PEX 5.3: Prune plants                  PEX 5.4: Spray garden                  PEX 5.5: Fence garden</p> <p><b>LWA 2/6: Perform Occupational Health, Safety and Environmental Protection Practices</b>                  PEX 6.1: Wear protective gear                  PEX 6.2: Administer first aid                  PEX 6.3: Observe personal hygiene                  PEX 6.4: Perform fire fighting                  PEX 6.5: Observe biosafety and security practices                  PEX 6.6: Display safety signs and precautions notes                  PEX 6.7: Store agrochemicals                  PEX 6.8: Manage waste                  PEX 6.9: Sensitise workers on OHSE issues</p>
<b>Occupational health and safety</b>	<p>Precautions, rules and regulations on occupational health, safety and environmental protection, included in the listed related knowledge should be observed and demonstrated during LWAs and PEXs</p>
<b>Pre-requisite modules</b>	<p>None</p>
<b>Related knowledge/ theory</b>	<p><i>For occupational theory suggested for instruction/ demonstration, the trainer is not limited to the outline below. In any case, related knowledge/ theory may be obtained from various recognised reference materials as appropriate:</i></p> <ul style="list-style-type: none"> <li>• Qualities of a good site</li> <li>• Soil fertility management</li> <li>• Soil and moisture conservation techniques</li> <li>• Quality water to be used</li> <li>• Routine farm management practices</li> </ul>

	<ul style="list-style-type: none"> <li>• Coffee varieties</li> <li>• Dimensions and measurements</li> <li>• Fertiliser types and application techniques</li> <li>• Weed control measures</li> <li>• Coffee watering techniques</li> <li>• Transplanting techniques</li> <li>• Chemical types and applications</li> <li>• Government regulations</li> <li>• Tools and equipment usage</li> <li>• Pests and disease control measures</li> </ul>
<b>Average duration of learning</b>	240 hours (30 days) of nominal learning suggested to include: <ul style="list-style-type: none"> <li>• <i>05 days of occupational theory and</i></li> <li>• <i>25 days of occupational practice</i></li> </ul>
<b>Suggestions on organisation of learning</b>	The acquisition of competencies (skills, knowledge, attitudes) described in this module may take place at a training centre or its equivalent provided all equipment and materials required for training are in place.
<b>Assessment</b>	Assessment to be conducted according to established regulations by a recognised assessment body using related practical and written test items from item bank.
<b>Minimum required tools/ equipment/ implements or equivalent</b>	computer, calculator, weighing scale, hammer, wheelbarrow, vehicle, moisture meter, rake, watering can, bucket, panga, knapsack, secateurs, pruning saw, hack saw, tractor, hoe, measuring tape, spade, rope, personal protective gear, fire extinguishers, garden forks, first aid kit,
<b>Minimum required materials and consumables or equivalent</b>	stationery, disposable pits, rooting hormones, detergents, pesticides, fertilisers, seeds, mulches, seedlings, nails, barbed wire, poles,
<b>Special notes</b>	All the theory should be integrated into practice during training



<b>Code</b>	<b>UE/CF/M 1.4</b>
<b>Module title</b>	<b>M 1.3: Establish a Coffee Farm Enterprise</b>
<b>Related Qualification</b>	<u>Part of</u> Uganda Vocational Qualification (Coffee Farmer UVQ1)
<b>Qualification Level</b>	1
<b>Module purpose</b>	After completion of this module, the trainee shall be able to establish and manage a coffee farm enterprise.
<b>Learning-Working Assignments (LWAs)</b>	<p><b>LWA 3/1: Plan a Coffee Enterprise</b>  <b>LWA 3/2: Market Coffee</b>  <b>LWA 3/3: Perform Basic Administrative Tasks</b>  <b>LWA 3/4: Perform Occupational Health Safety and Environmental Protection Practices</b></p> <p><b>Note:</b>                      1. <i>The learning exercises may be repeated until the trainee acquires targeted competence;</i>                      2. <i>The trainer is advised to deliver relevant theoretical instruction with demonstrations as required to perform each learning working assignment.</i></p>
<b>Related Practical Exercises (PEXs)</b>	<p><b>LWA 3/1: Plan a Coffee Enterprise</b>                      PEX 1.1: Conduct a feasibility study                      PEX 1.2: Select farm site                      PEX 1.3: Determine coffee variety                      PEX 1.4: Source for farm inputs                      PEX 1.5: Identify labour requirements                      PEX 1.6: Determine production methods                      PEX 1.7: Develop site structural plan                      PEX 1.8: Prepare financial plan                      PEX 1.9: Prepare budget                      PEX 1.10: Prepare procurement plan</p> <p><b>LWA 3/2: Market coffee</b>                      PEX 2.1: Sort coffee                      PEX 2.2: Grade coffee                      PEX 2.3: Pack coffee                      PEX 2.4: Weigh coffee                      PEX 2.5: Brand coffee                      PEX 2.6: Bulk coffee                      PEX 2.7: Store coffee                      PEX 2.8: Conduct market research                      PEX 2.9: Price coffee                      PEX 2.10: Advertise coffee                      PEX 2.11: Transport coffee                      PEX 2.12: Sell coffee</p>

	<p><b>LWA 3/3: Perform Basic Administrative Tasks</b></p> <p>PEX 3.1: Manage finances                  PEX 3.2: Recruit workers                  PEX 3.3: Train workers                  PEX 3.4: Supervise works                  PEX 3.5: Motivate workers                  PEX 3.6: Attend meetings                  PEX 3.7: Keep records                  PEX 3.8: Remunerate workers                  PEX 3.9: Communicate with stakeholders                  PEX 3.10: Manage conflicts</p> <p><b>LWA 3/4: Perform Occupational Health Safety and Environmental Protection Practices</b></p> <p>PEX 4.1: Plant trees                  PEX 4.2: Perform fire fighting                  PEX 4.3: Manage waste                  PEX 4.4: Sensitise workers on key health issues                  PEX 4.5: Wear protective gear                  PEX 4.6: Administer first aid                  PEX 4.7: Train workers on health and safety issues</p>
<p><b>Occupational health and safety</b></p>	<p>Precautions, rules and regulations on occupational health, safety and environmental protection, included in the listed related knowledge should be observed and demonstrated during LWAs and PEXs.</p>
<p><b>Pre-requisite modules</b></p>	<p>None</p>
<p><b>Related knowledge/ theory</b></p>	<p><i>For occupational theory suggested for instruction/ demonstration, the trainer is not limited to the outline below. In any case, related knowledge/ theory may be obtained from various recognised reference materials as appropriate:</i></p> <ul style="list-style-type: none"> <li>• Record keeping</li> <li>• Marketing and promotional techniques</li> <li>• Communication methods</li> <li>• Cooperation with other stake holders</li> <li>• Human resource management</li> <li>• Market trends</li> <li>• Taxation</li> <li>• Operational costs</li> <li>• Financial management techniques</li> <li>• Resource mobilisation</li> <li>• Occupational health, safety and environmental practices</li> <li>• Coffee varieties</li> <li>• Characteristic features of quality coffee</li> <li>• Coffee growing seasons</li> </ul>

	<ul style="list-style-type: none"> <li>• Government policy regulations</li> <li>• Computer knowledge</li> <li>• Key actors in coffee</li> <li>• Climate change</li> </ul>
<b>Average duration of learning</b>	160 hours (20 days) of nominal learning suggested to include: <ul style="list-style-type: none"> <li>• <i>7 days of occupational theory and</i></li> <li>• <i>13days of occupational practice</i></li> </ul>
<b>Suggestions on organisation of learning</b>	The acquisition of competencies (skills, knowledge, attitudes) described in this module may take place at a training centre or its equivalent provided all equipment and materials required for training are in place.
<b>Assessment</b>	Assessment to be conducted according to established regulations by a recognised assessment body using related practical and written test items from item bank.
<b>Minimum required tools/ equipment/ implements or equivalent</b>	computer, mobile phone, sampling spear, weighing machines, calculator
<b>Minimum required materials and consumables or equivalent</b>	receipt books, stationery, basins, sisal bag, ledgers
<b>Special notes</b>	

<b>Code</b>	<b>UE/CF/M 1.4</b>
<b>Module title</b>	<b>M 1.4: Perform Harvesting and Post-Harvest Handling of Coffee</b>
<b>Related Qualification</b>	Part of Uganda Vocational Qualification (Coffee Farmer UVQ1)
<b>Qualification Level</b>	<b>1</b>
<b>Module purpose</b>	By the end of this module, the trainee shall be able to harvest and prepare coffee for further processing and marketing.
<b>Learning-Working Assignments (LWAs)</b>	<p><b>LWA 4/1: Harvest Coffee</b>  <b>LWA 4/2: Dry Coffee</b>  <b>LWA 4/3: Make Parchment</b>  <b>LWA 4/4: Store Coffee</b>  <b>LWA 4/5: Perform Occupational Health Safety and Environmental Protection Practices</b></p> <p><b>Note:</b></p> <ol style="list-style-type: none"> <li>1. The learning exercises may be repeated until the Trainee acquires targeted competence;</li> <li>2. The trainer is advised to deliver relevant theoretical instruction with demonstrations as required to perform each learning working assignment.</li> </ol>
<b>Related Practical Exercises (PEXs)</b>	<p><b>LWA 4/1: Harvest Coffee</b>                  PEX 1.1: Identify ripe coffee                  PEX 1.2: Schedule harvesting time                  PEX 1.3: Select tools, equipment and materials                  PEX 1.4: Pick coffee                  PEX 1.5: Sort coffee                  PEX 1.6: Weigh coffee                  PEX 1.7: Transport coffee</p> <p><b>LWA 4/2: Dry Coffee</b>                  PEX 2.1: Select tools, equipment and materials                  PEX 2.2: Prepare drying trays/beds                  PEX 2.3: Spread coffee                  PEX 2.4: Measure moisture content                  PEX 2.5: Bag coffee                  PEX 2.6: Weigh coffee</p> <p><b>LWA 4/3: Make Parchment</b>                  PEX 3.1: Select tools, equipment and materials                  PEX 3.2: Prepare drying trays/beds                  PEX 3.3: Float coffee                  PEX 3.4: Ferment coffee                  PEX 3.5: Pulp coffee                  PEX 3.6: Wash coffee</p>

	<p>PEX 3.7: Spread coffee                  PEX 3.8: Measure moisture content                  PEX 3.9: Bag coffee                  PEX 3.10: Weigh coffee</p> <p><b>LWA 4/4: Store Coffee</b>                  PEX 4.1: Select tools, equipment and materials                  PEX 4.2: Prepare storage facility                  PEX 4.3: Bag coffee                  PEX 4.4: Weigh coffee                  PEX 4.5: Stack bags                  PEX 4.6: Prepare production report</p> <p><b>LWA 4/5: Perform Occupational Health, Safety and Environmental Protection Practices</b>                  PEX 5.1: Wear protective gear                  PEX 5.2: Display safety signs                  PEX 5.3: Administer first aid                  PEX 5.4: Observe hygiene and sanitation                  PEX 5.5: Manage waste                  PEX 5.6: Perform fire fighting</p>
<b>Occupational health and safety</b>	<p>Precautions, rules and regulations on occupational health, safety and environmental protection, included in the listed related knowledge should be observed and demonstrated during LWAs and PEXs</p>
<b>Pre-requisite modules</b>	<p>None</p>
<b>Related knowledge/ theory</b>	<p><i>For occupational theory suggested for instruction/ demonstration, the trainer is not limited to the outline below. In any case, related knowledge/ theory may be obtained from various recognised reference materials as appropriate:</i></p> <ul style="list-style-type: none"> <li>• Harvesting methods of coffee</li> <li>• Harvesting tools and equipment to use</li> <li>• Handling and maintenance of tools and equipment</li> <li>• Literacy and numeracy</li> <li>• Wet processing of coffee</li> <li>• Dry processing of coffee</li> <li>• Coffee preservation techniques</li> <li>• Coffee storage</li> <li>• Hygiene requirements</li> <li>• Tools and equipment types and usage</li> <li>• Coffee regulations/laws</li> <li>• Quality assurance</li> <li>• Good environmental enhancing practices</li> <li>• Pre-harvesting intervals</li> <li>• First aid administration</li> <li>• Health and safety regulations and precautions</li> </ul>

<b>Average duration of learning</b>	160 hours (20 days) of nominal learning suggested to include: <ul style="list-style-type: none"> <li>• <i>5 days of occupational theory and</i></li> <li>• <i>15 days of occupational practice</i></li> </ul>
<b>Suggestions on organisation of learning</b>	The acquisition of competencies (skills, knowledge, attitudes) described in this module may take place at a training centre or its equivalent provided all equipment and materials required for training are in place
<b>Assessment</b>	Assessment to be conducted according to established regulations by a recognised assessment body using related practical and written test items from item bank.
<b>Minimum required tools/ equipment/ implements or equivalent</b>	wheelbarrow, hammer, transport means, tape measure, pulper, spade, buckets, basins, baskets, Jerrycans, drums, moisture meter, sampling spear, protective gear, weighing scale, knapsack sprayer cutters, traps
<b>Minimum required materials and consumables or equivalent</b>	bags, tarpaulin/platform, pallets, poles, nails, wire mesh, stationery,
<b>Special notes</b>	

## **3.0 ATP- PART III**

### **Assessment Instruments for a COFFEE FARMER**

- 3.1 Assessment of occupational competence is the procedure by which evidence is gathered and judged to decide if an individual (candidate) has met the stipulated assessment standards.
  - 3.2 Assessment of occupational competence should comprise of both practical (Performance) testing and written (theory/knowledge) testing.
  - 3.3 Based on the occupational profile and training modules, a combined panel of job practitioners and Instructors developed a substantial number of test items for assessing (practical) performance as well as items for assessing occupational knowledge (theory) all stored in an electronic Test Item Bank (TIB) at the Directorate of Industrial Training.
  - 3.4 Performance (Practical) Test Items (PTI) are closely related to typical work situations in Ugandan business enterprises. They comprise of a test assignment for candidates and assessment criteria and/or scoring guides for assessors' use.
  - 3.5 Written Test items (WTI) for written testing of occupational theory, (knowledge) are presented in different forms which include:
    - Short answer test items.
    - Multiple choice test items
    - Matching test items,
- These WTIs herein focus on functional understanding as well as trouble-shooting typically synonymous with the world of work.
- 3.6 Composition of assessment/test papers will always require good choices of different types of WTI in order to ensure the assessment of relevant occupational knowledge required of candidates to exhibit competence.
  - 3.7 The test items contained in the Test Item Bank may be used for continuous/formative assessment during the process of training as well as for summative assessment of candidates who have acquired their competences non-formally or informally.
  - 3.8 In this document, samples of test items for assessing both performance (practical) and occupational knowledge (theory) of a COFFEE FARMER are included.

No	Type of test items	Numbers included
1.	Written (Theory) - short answer	3
2.	Written (Theory) - multiple choice	3
3.	Written (Theory) - matching with generic	3
4.	Written (Theory) - cause effect	3
5.	Written (Theory) - work sequence	3
6.	Performance (Practical) test items	1
<b>Total</b>		<b>16</b>



## WRITTEN TEST ITEMS- LEVEL 1

<b>DIT/ QS</b>	<b>Test Item Database Written (Theory) Test Item- No. 1</b>			
<b>Occupational Title:</b>	Coffee Farmer			
<b>Competence level:</b>	Level 1			
<b>Code no.</b>				
<b>Test Item type:</b>	Short answer	√		
	Multiple choice			
	Matching item	Generic	Cause- Effect	Work- sequence
<b>Complexity level:</b>	C2			
<b>Date of OP:</b>	August, 2020			
<b>Related modules:</b>	M1.2			
<b>Time allocation:</b>	3 minutes			

<b>Test Item</b>	List down any four (4) activities undertaken in establishing a coffee farm.
<b>Answer spaces</b>	(i) ..... (ii) ..... (iii) ..... (iv) .....
<b>Expected key (answers)</b>	(i) Clear site (ii) Make a farm layout (iii) Till land (iv) Apply fertilisers/manure (v) Construct trenches (vi) Perform holing

<b>DIT/ QS</b>	<b>Test Item Database Written (Theory) Test Item- No. 2</b>			
<b>Occupational Title:</b>	Coffee Farmer			
<b>Competence level:</b>	Level 1			
<b>Code no.</b>				
<b>Test Item type:</b>	Short answer	√		
	Multiple choice			
	Matching item	Generic	Cause- Effect	Work- sequence
<b>Complexity level:</b>	C1			
<b>Date of OP:</b>	August, 2020			
<b>Related modules:</b>	M1.2			
<b>Time allocation:</b>	2 minutes			

<b>Test Item</b>	List any three methods of controlling pests and diseases in a coffee garden
<b>Answer spaces</b>	(i) ..... (ii) ..... (iii) .....
<b>Expected key (answers)</b>	(i) Spraying (ii) Weeding (iii) Pruning (iv) Timely harvesting (v) Fencing (vi) Uprooting diseased plants (vii) Dusting

DIT/ QS	<b>Test Item Database Written (Theory) Test Item- No. 3</b>			
<b>Occupational Title:</b>	Coffee Farmer			
<b>Competence level:</b>	Level 1			
<b>Code no.</b>				
<b>Test Item type:</b>	Short answer	√		
	Multiple choice			
	Matching item	Generic	Cause- Effect	Work- sequence
<b>Complexity level:</b>	C1			
<b>Date of OP:</b>	August, 2020			
<b>Related modules:</b>	M1.2			
<b>Time allocation:</b>	3 minutes			

Test Item	State any four methods of soil conservation in a coffee farm
<b>Answer spaces</b>	(i) ..... (ii) ..... (iii) ..... (iv) .....
<b>Expected key (answers)</b>	(i) Mulching (ii) Manure application (iii) Digging trenches (iv) Placing stone lines (v) Intercropping (vi) Strip planting (vii) Agro forestry

DIT/QS	<b>Test Item Database</b> <b>Written (Theory) Test Item- no. 4</b>			
Occupational Title:	Coffee Farmer			
Competence level:	Level 1			
Code no.				
Test Item type:	Short answer			
	Multiple choice	√		
	Matching item	Generic	Cause-Effect	Work-sequence
Complexity level:	C1			
Date of OP:	August 2020			
Related module:	M: 1.2			
Time allocation:	2 minutes			

<b>Test Item</b>	Which of the following activities is carried out by a farmer when preparing a coffee farm site
<b>Distractors and correct answer</b>	A. Mulching the garden B. Making farm layout C. Planting wind break trees D. Planting seedlings

<b>Key (answer)</b>	B
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DIT/QS	<b>Test Item Database</b> <b>Written (Theory) Test Item- no. 5</b>			
<b>Occupational Title:</b>	Coffee Farmer			
<b>Competence level:</b>	Level 1			
<b>Code no.</b>				
<b>Test Item type:</b>	Short answer			
	Multiple choice	√		
	Matching item	Generic	Cause- Effect	Work-sequence
<b>Complexity level:</b>	C2			
<b>Date of OP:</b>	August 2020			
<b>Related module:</b>	M: 1.4			
<b>Time allocation:</b>	2 minutes			

<b>Test Item</b>	The process of obtaining coffee beans from fresh cherries is called .....
<b>Distractors and correct answer</b>	A. Fermenting B. Hulling C. Pulping D. Milling

<b>Key (answer)</b>	C
---------------------	---

DIT/QS	Test Item Database Written (Theory) Test Item- no. 6			
Occupational Title:	Coffee Farmer			
Competence level:	Level 1			
Code no.				
Test Item type:	Short answer			
	Multiple choice	√		
	Matching item	Generic	Cause- Effect	Work- sequence
Complexity level:	C3			
Date of OP:	August 2020			
Related module:	M: 1.2			
Time allocation:	1 minute			

Test Item	Which one of the following is a method of controlling coffee wilt disease?
Distractors and correct answer	A. Spraying B. Stumping C. Uprooting D. De-suckering

Key (answer)	C
--------------	---

DIT/QS	Test Item Database Written (Theory) Test Item- no.7			
Occupational Title:	Coffee Farmer			
Competence level:	Level 1			
Code no.				
Test Item type:	Short answer			
	Multiple choice			
	Matching item	Generic	Cause- Effect	Work- sequence
		√		
Complexity level:	C2			
Date of OP:	August 2020			
Related module:	M: 1:2			
Time allocation:	5 minutes			

<b>Test Item</b>	Match the following coffee farm equipment with their purpose.
------------------	---

Equipment	
1	Hoe
2	Wheelbarrow
3	Watering can
4	Weighing scale
5	Knapsack sprayer

Purpose	
A	Tilling land
B	Measuring quantity of coffee
C	Carrying manure to the garden
D	Irrigating crops
F	Drying coffee
G	Spraying garden

<b>Key (answer)</b>	1: A, 2:C, 3:D, 4:B, 5:G
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DIT/QS	Test Item Database Written (Theory) Test Item- no.8			
<b>Occupational Title:</b>	Coffee Farmer			
<b>Competence level:</b>	Level 1			
<b>Code no.</b>				
<b>Test Item type:</b>	Short answer			
	Multiple choice			
	Matching item	Generic	Cause-Effect	Work-sequence
		√		
<b>Complexity level:</b>	C2			
<b>Date of OP:</b>	August 2020			
<b>Related module:</b>	M: 1:4			
<b>Time allocation:</b>	3 minutes			

<b>Test Item</b>	Match the following processes with their appropriate tools.
------------------	---

Column A processes	
1	Harvesting
2	Stacking
3	Drying
4	Parchment

Column B tools	
A	Wheelbarrow
B	Basket
C	Pallets
D	Pulper
E	Tarpaulin
F	Weighing scale

<b>Key (answer)</b>	1:B, 2:C, 3:E, 4:D
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<b>DIT/QS</b>	<b>Test Item Database Written (Theory) Test Item- no.9</b>			
<b>Occupational Title:</b>	Coffee Farmer			
<b>Competence level:</b>	Level 1			
<b>Code no.</b>				
<b>Test Item type:</b>	Short answer			
	Multiple choice			
	Matching item	Generic	Cause-Effect	Work-sequence
		√		
<b>Complexity level:</b>	C2			
<b>Date of OP:</b>	August 2020			
<b>Related module:</b>	M: 1:3			
<b>Time allocation:</b>	5 minutes			

<b>Test Item</b>	Match the following terms with their meanings
------------------	---

<b>Terms</b>	
1	Branding
2	Feasibility study
3	Budgeting
4	Promotion

<b>Meanings</b>	
A	Assessing the profitability of a business venture
B	Creating awareness about the available products
C	Identifying customer needs
D	Naming a product
E	Planning for income and expenditure
F	Preparing financial statements

<b>Key (answer)</b>	1:D 2: A, 3: E, 4: B
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<b>DIT/QS</b>	<b>Test Item Database</b> <b>Written (Theory) Test Item- no. 10</b>		
<b>Occupational Title:</b>	Coffee Farmer		
<b>Competence level:</b>	Level 1		
<b>Code no.</b>			
<b>Test Item type:</b>	Short answer		
	Multiple choice		
	Matching item	Generic	Cause-Effect
			Work-sequence
<b>Complexity level:</b>	C2		
<b>Date of OP:</b>	August 2020		
<b>Related module:</b>	M: 1:4		
<b>Time allocation:</b>	3 minutes		

<b>Test Item</b>	Match the following bad practices with their effects in post-harvest handling of coffee
------------------	---

Practice	
1	Drying coffee on bare ground
2	Failure to measure moisture content
3	Drying coffee below 13% MC
4	Packing by stripping

Effect	
A	Loss of weight
B	Black beans
C	Bad odour
D	Mouldy beans
E	Discoloured seed
F	Broken beans

<b>Key (answer)</b>	1: C; 2: D; 3: A; 4: B
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DIT/QS	Test Item Database Written (Theory) Test Item- no. 11			
Occupational Title:	Coffee Farmer			
Competence level:	Level 1			
Code no.				
Test Item type:	Short answer			
	Multiple choice			
	Matching item	Generic	Cause-Effect	Work-sequence
			√	
Complexity level:	C2			
Date of OP:	August, 2020			
Related module:	M: 1:2			
Time allocation:	3 minutes			

<b>Test Item</b>	Match the following faults and their effects on the coffee farm
------------------	---

Faults	
1	Untrained plants
2	Unpruned plants
3	Infertile soils
4	Unstumped plants

Effects	
A	Excessive branches
B	Falling off of coffee seeds
C	Poor fertiliser application
D	Excessive height
E	Stunted growth
F	Aging plantation

<b>Key (answer)</b>	1:D, 2:A, 3:E, 4:F
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<b>DIT/QS</b>		<b>Test Item Database</b>		
		<b>Written (Theory) Test Item- no. 12</b>		
<b>Occupational Title:</b>	Coffee Farmer			
<b>Competence level:</b>	Level 1			
<b>Code no.</b>				
<b>Test Item type:</b>	Short answer			
	Multiple choice			
	Matching item	Generic	Cause-Effect	Work-sequence
			√	
<b>Complexity level:</b>	C1			
<b>Date of OP:</b>	August, 2020			
<b>Related module:</b>	M: 1:4			
<b>Time allocation:</b>	3 minutes			

<b>Test Item</b>	Match the following malpractices in harvesting with their effects
------------------	---

<b>Malpractices</b>	
1	Poor drying
2	Lack of supervision
3	Drying coffee on the ground
4	Picking green coffee

<b>Effects</b>	
A	Coffee mixed with foreign materials
B	High moisture content
C	Black coffee bean
D	Loss of harvesting equipment
E	Weight gain
F	Coffee theft

<b>Key (answer)</b>	1: B, 2:F, 3:A, 4:C
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DIT/QS	Test Item Database Written (Theory) Test Item- no.13			
Occupational Title:	Coffee Farmer			
Competence level:	Level 1			
Code no.				
Test Item type:	Short answer			
	Multiple choice			
	Matching item	Generic	Cause- Effect	Work-sequence
				√
Complexity level:	C3			
Date of OP:	August 2020			
Related tasks:	M:1:4			
Time allocation:	5 minutes			

<b>Test Item</b>	Re-arrange the procedure followed in order when drying coffee
------------------	---

Column A (chronology)	Column B (work steps) in wrong chronological order	
1 <sup>st</sup>	A	Bag coffee
2 <sup>nd</sup>	B	Spread coffee
3 <sup>rd</sup>	C	Select tools, equipment and tools
4 <sup>th</sup>	D	Weigh coffee
5 <sup>th</sup>	E	Measure moisture content
6 <sup>th</sup>	F	Prepare drying trays/beds

<b>Key (answer)</b>	1-C; 2-F; 3- B; 4-E; 5- A; 6- D
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DIT/QS	<b>Test Item Database Written (Theory) Test Item- no.14</b>			
<b>Occupational Title:</b>	Coffee Farmer			
<b>Competence level:</b>	Level 1			
<b>Code no.</b>				
<b>Test Item type:</b>	Short answer			
	Multiple choice			
	Matching item	Generic	Cause-Effect	Work-sequence
				√
<b>Complexity level:</b>	C3			
<b>Date of OP:</b>	August 2020			
<b>Related tasks:</b>	M: 1:1			
<b>Time allocation:</b>	5 minutes			

<b>Test Item</b>	Arrange the following steps taken in nursery preparation in chronological order.
------------------	--

Column A (chronology)	Column B (work steps) in wrong chronological order	
1 <sup>st</sup>	A	Till site
2 <sup>nd</sup>	B	Select site
3 <sup>rd</sup>	C	Prepare growth medium
4 <sup>th</sup>	D	Clear site
5 <sup>th</sup>	E	Take nursery measurements
6 <sup>th</sup>	F	Select tools, equipment and materials

<b>Key (answer)</b>	1-B; 2-F; 3- D; 4-A; 5- E; 6- C
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DIT/QS	Test Item Database Written (Theory) Test Item- no.15			
Occupational Title:	Coffee Farmer			
Competence level:	Level 1			
Code no.				
Test Item type:	Short answer			
	Multiple choice			
	Matching item	Generic	Cause-Effect	Work-sequence
				√
Complexity level:	C1			
Date of OP:	August 2020			
Related tasks:	M: 1:1			
Time allocation:	2 minutes			

<b>Test Item</b>	Re-arrange the procedures observed when erecting a nursery shade
------------------	--

Column A (chronology)	Column B (work steps) in wrong chronological order	
1 <sup>st</sup>	A	Spread the roofing material
2 <sup>nd</sup>	B	Cut poles
3 <sup>rd</sup>	C	Select tools, equipment and materials
4 <sup>th</sup>	D	Dig holes
5 <sup>th</sup>	E	Fence the nursery bed
6 <sup>th</sup>	F	Fix poles
7 <sup>th</sup>	G	Treat poles

<b>Key (answer)</b>	1-C; 2-B; 3-D; 4-G; 5- F; 6- A; 7-E
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## PERFORMANCE TEST ITEMS

DIT/QS	Test Item Database Performance Test Item No.1
<b>Occupational Title:</b>	Coffee Farmer
<b>Competence level:</b>	Level 1
<b>Code no.</b>	
<b>Test Item:</b>	a) Harvest 10kgs of coffee and prepare it for drying b) Sort and pack 20kgs of coffee at a moisture content of 13% for sale.
<b>Complexity level:</b>	P2
<b>Date of OP:</b>	August 2020
<b>Related module:</b>	M1.4
<b>Related skills and knowledge:</b>	<ul style="list-style-type: none"> <li>• Harvesting methods</li> <li>• Tools, equipment and material usage</li> <li>• Maintenance of tools and equipment</li> <li>• Coffee regulations</li> <li>• Quality assurance</li> <li>• Occupation health, safety and environmental protection practices</li> </ul>
<b>Required tools, Equipment, and Materials:</b>	Insecticide sprayer, wheelbarrow/bicycle/motorcycle, buckets, basins, baskets, personnel protective gear, tarpaulin, weighing scale, moisture meter, rope, bags, needle, stationery, dry coffee beans and semi dry coffee beans
<b>Time allocation:</b>	3 Hours
<b>Preferred venue:</b>	Coffee farm
<b>Remarks for candidates</b>	Candidates must have personnel protective equipment
<b>Remarks for assessors</b>	Provide all required resources for assessment Provide a mixture of both dry and semi-dry coffee for part (b)



#	Assessment criteria	Scoring guide	Max. Score	
			Process	Result
1	Preparation for task	<b>Wore protective gear:</b> Overall Gum boots Head gear Gloves		1 1 1 1
		Assembled tools, equipment and materials	3	
2	Harvesting of coffee	Identified ripe coffee cherries	3	
		Laid tarpaulin under coffee plant	1	
		Wide spread of tarpaulin observed		2
		Picked coffee cherries	3	
		Red ripe cherries picked observed		2
		Stalks free cherries observed		3
		Undamaged branches and twigs observed		3
		Gathered scattered coffee cherries on the tarpaulin	2	
		Ground free of coffee cherries observed		3
3	Sorting of coffee	Removed foreign material from the coffee cherries.	2	
		Cherries free of foreign materials observed		3
4	Transportation of coffee	Bagged coffee	2	
		No spills of cherries on the ground observed		1
		Weighed coffee	1	
		Quantity of 10kgs verified		2
		Transported coffee	2	
5	Preparation for drying of coffee	Cleaned drying platform	2	
		Dirt free platform observed		3
		Spread coffee	2	
		Even distribution of coffee observed		3
6	Packing of coffee	Sorted dry from semi-dry cherries	2	
		Completely dry sample observed		1
		Picked a representative sample	2	

	Measured moisture content	3	
	Use of a moisture meter observed		4
	Moisture content of 13% verified		2
	Bagged coffee	2	
	Weighed coffee	3	
	Use of weighing scale observed		3
	Kept measurement records		4
	20kg weight verified		4
	Sealed coffee bag	2	
	Tightly sealed bag observed		2
	Labelled bag	2	
	Label verified		3
	<b>Total</b>	<b>39</b>	<b>52</b>
			<b>91</b>

## **4.0 ATP- PART IV**

### **INFORMATION ON DEVELOPMENT PROCESS**

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#### **4.1 Occupational Profile Development (August 2020)**

The Occupational Profile was exclusively developed by job practitioners who were working in the Coffee Farmer occupation. The job expert panel, guided by UVQF Facilitators defined duties and tasks performed and provided additional generic information regarding the occupation.

#### **4.2 Training Module Development (August 2020)**

Based on the Occupational Profile for a Coffee Farmer of August 2020, Training Modules were developed by job practitioners, guided by UVQF Facilitators.

#### **4.3 Test Item Development (August 2020)**

Based on the Occupational Profile for a Coffee Farmer of August 2020, and Training Modules, Test Items were developed by combined panels of instructors and job practitioners, guided by UVQF Facilitators.

#### **4.4 Methodology**

The rationale for the Assessment and Training Package development was to link Vocational Education and Training to the real world of work by bridging Occupational Standards to Training Standards through industry-led Standards-Based Assessment.

Active participation of both instructors and job practitioners' panels consolidated the development philosophy.

The panelists worked as teams in workshop settings complemented by off-workshop field research and literature development activities including international benchmarking.

## 4.5 Development Panels

The participating panels of Job Practitioners required at different stages were constituted by members from the following organisations:

Development Panel		
	Name	Institution/ Organisation
1.	Robert Nangatsa	Uganda Coffee Development Authority (UCDA)
2.	Mulumba Mutema Mathias	National Curriculum Development Center (NCDC)
3.	Bamuhangaine Nicodemus	Ankole Coffee Producers
4.	Jordan Bateisibwa Abaine	Jordan Coffee Farm
5.	Musisi Ssebatta Joseph	Coffee Farmer
6.	Mugumya Benjamin Andrew	Coffee farmer
7.	Alinaitwe Jonan	Coffee farmer
8.	Turyakira Haruna	Haruna and Nuriat Coffee
9.	James Namara	Ntungamo Integrated Farm and Demonstration Centre
10.	Napunyi Patrick	Masaka S.S (UNEBC Examiner)
11.	Kataba Abu Juma	Buzaaya Growers Cooperative Union
12.	Julius Mayeku	Coffee farmer
13.	Atim Mikali	Teso Collage Aloet (UNEBC Examiner)
14.	Ssembatya Aafi	Kassanda Farmer's Association
15.	Kintu Joseph	Coffee farmer

### **Facilitator team**

This Assessment and Training Package was developed by a Facilitator team listed below:

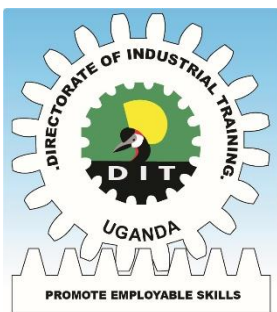
- 1) **Team Leader:** Ms. Mukyala Ruth Ag. Deputy Director, DIT
- 2) **Facilitators:** Ms. Nakyobe Safinah PQO, DIT  
Ms. Aheebwa Joan DIT  
Ms. Kusasira Agnes, DIT
- 3) **DIT Data Entrant:** Ms. Nakisendo Fatuma,  
Ms. Nyakamadi Janet, Data Entrant  
Ms. Mushabenta Brendah
- 4) **Compiled by:** Ms. Mushabenta Brendah
- 5) **Edited by:** Ms. Mukyala Ruth Ag. DD QS Dept. DIT
- 6) **Coordinated by:** Mr. Byakatonda Patrick, Ag. Director, DIT

### **Reference time:**

The Assessment and Training Package was compiled in August 2020 and may be periodically revised to match the dynamic trends in the occupation and hence issued in different versions.

### **References**

- *New Robusta hand book by Uganda Coffee Development Authority*
- *Arabic coffee hand book by Uganda Coffee Development Authority*
- *Coffee growing, processing, sustainable production by Jean Nicolas wintgerm*
- *Coffee: A comprehensive guide to the bean, the beverage and the industry by Robert W. Thursto*



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