

**STUDY REPORT**

**SCOPING STUDY FOR THE  
IMPLEMENTATION OF  
MOBILISE PROJECT IN  
ETHIOPIA**

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The MOBILISE project aims at launching a scalable and institutionally entrenched circular talent development programme between the Netherlands and Tunisia, Egypt and Ethiopia for the strengthening of climate-smart agriculture. The project, which specifically targets the agricultural sector, seeks to meet the demands of the labour market in the participating countries by involving partners from the public and private sector while developing cooperation with local higher educational institutions.

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## Executive Summary

MOBILISE is a project financed by the European Commission, via the International Centre for Migration Policy Development (ICMPD) as donor agency. Maastricht University, Maastricht school of Management from The Netherlands is implementing the project with the aim of setting-up a scalable, institutionally embedded circular talent development program between the Netherlands and Tunisia, Egypt, and Ethiopia in favour of strengthening climate-smart agriculture. As part of this project, this need assessment or scoping study is for Ethiopia to further develop the projects area of interventions, gain a lesson from similar projects as well as identify stakeholders to work with. The study collected primary data using semi-structured interviews and secondary data from a review of existing literature, proclamations and reports. A total of 11 institutions which included a mix of private sector, public institutions, universities and international organizations working in circular migration and horticulture participated. The findings of the study show that the horticulture sector is a growing sector in the Ethiopian economy that also attracts investment from other countries including The Netherlands. The private companies working in the horticulture sector are challenged by major obstacles such as the shortage of foreign currency, security issues due to political instability, and an increasing trend of corruption, bureaucracy, electric power shortage and fluctuations and lack of skilled labour. However, the horticulture sector also presents opportunities to be grabbed, such as location advantage to export, infrastructure development, conducive climate and soil, water supply, huge local and international market and government support. With regard to labour needs, private companies, though there is improvement in finding an experienced horticulture local expert in the labour market, are still challenged in getting a qualified skilled manpower in required number in the job market. The most important skills companies require include practical hands-on experience on production, quality management, postharvest handling, logistics management including cold chain management, marketing, digital literacy, pesticide management and soft skills such as leadership skills, communications skills, conflict management skills, time management skills, taking personal responsibility and problem solving. According to companies, recent graduates not only lack practical farm experience but also the commitment to work in the agricultural field. The gap for this is due to the weak research and internship integration between the private and academic sectors.

In regard to migration, there are not well-developed policy frameworks to promote or manage circular migration flows. However, through the amended Overseas Employment proclamation, there is a good start by the MoLS in engaging Ethiopian migrants in the four Gulf countries with whom Ethiopia signed labour bilateral agreements. Skill development for domestic labour needs of the Gulf countries is underway and this experience shall serve as a best practice for developing programs that could meet the local as well as international labour market needs. In additions, circular migration is

recognized as an important element to sustainable development through balancing the international labour market. However, formalizing the legal pathways of circular migration between Ethiopia and Europe shall take time.

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## Acronyms and Abbreviations

AASTU	Addis Ababa Science and Technology University
ABET	Accreditation Board for Engineering and Technology
ABIC	Agricultural Business Incubation Center
Aeres	Aeres University of Applied Sciences
ASTU	Adama Science and Technology University
ATVET	Agricultural Technical Vocational Education and Training
BDU	Bahir Dar University
BIC	Business Incubator community Ethiopia
BOLSA	Bureau of Labour and Social Affairs
BSc	Bachelor of Science
CEO	Chief Executive Officer
CRC	Convention on the Rights of the Child
CV	Curriculum Vitae
EBA	Everything But Arms
EDCRC	Employability Development and Career Readiness Center
EDI	Entrepreneurship Development Institute
EHPEA	Ethiopian Horticulture Producers and Exporters Association
ETA	Education and Training Authority
EU	European Union
FDRE	Federal Democratic Republic of Ethiopia
FHEI	Foreign Higher Education Institution
FIC	Female Innovation Centre
GAC	Global Affairs Canada
GCIM	The Global Commission on International Migration
GFMD	Global Forum on Migration and Development
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit (German Development Agency)
HERQA	Higher Education Relevance and Quality Agency
HU	Hawassa University
ICMPD	International Centre for Migration Policy Development
ID card	Identification card
IELTS	International English Language Test System
ILO	International Labour Organization

IOM	International Organization for Migration
KU	Kafr El Sheikh University
MoE	Ministry of Education
MoLS	Ministry of Labour and Skills
MPF	Migration Partnership Facility
MSBSMU	Mediterranean School of Business
MSc	Mater of Science
MSME	Micro, Small and Medium Enterprises
PESC	Public Employment Services Centre
PhD	Doctor of Philosophy
SNV	Netherlands Development Organization
TBIC	Technology Business Incubation Centre
TOEFL	Test of English as a Foreign Language
TVET	Technical and Vocational Education and Training
UM-MSM	Maastricht University - Maastricht School of Management
UNCTAD	United Nations Conference on Trade and Development
UNDP	UN Development Programme
UNHCR	UN High Commissioner for Refugees
UNIDO	UN Industrial Development Organization
USD	United States Dollar
YES	Youth Employability Services

## 1 Introduction

Ethiopia has a high potential for the production and export of horticulture products that are able to meet global standards. The sector is endowed with conducive climate, soil and water supply to produce a wide range of crops across the seasons. This competitiveness in the global market is enhanced by its geographical location at the gateway of Africa, Middle East and Europe, by the growing infrastructure development, the high demand from local and international market and others. According to the website of Ethiopian Horticulture Producers Exporters Association (EHPEA), Ethiopia, second most populous nation in Africa, has a total land area of 1.14 million sq. km and over 11 million hectares of irrigable land. The horticulture sector at the moment covers a land area of 10,897.21 hectares and employs 199,640 Ethiopians. The rank of horticulture as source of foreign exchange earnings improved from year to year. For example, its rank stood as fifth, fourth and third for the fiscal year 2015/16, 2017/18 and 2021/22, respectively. For instance, if one breaks down the horticulture subsectors' contribution towards a total of US\$ 307.04 million as a foreign exchange earnings for the fiscal year of 2017/18, floriculture contributes much of the share in around 79% while the expanding vegetable, fruits, and herbs have 21% share of the revenue. The sector with its high growth potential has a huge potential to employment creation to tackle the high youth unemployment the country is facing. In addition, exploring international labour market opportunities through the legal pathway of circular migration is another way out to tackle the unemployment challenge in the country. Ethiopia is one of the top host countries for refugees coming from different countries. According to UNHCR (2022) report Ethiopia hosted a total of 837,533 refugees coming from 26 countries. Ethiopia is also a source of migrants and the rate of both skilled and unskilled migrants is increasing as compared to the past (Asnake and Fana 2021). A study by Semela and Cochrane (2019) stated more skilled Ethiopians have migrated to the US, Italy and Canada for education and employment opportunities, while non-skilled workers migrate to Saudi Arabia. Studies have shown the different reasons driving migration in Ethiopia. These factors are mainly related to political and socio-economic factors such as political instability, unemployment, and poverty (Guday and Kiya 2013). IOM reported that more than 839,000 migrants from Ethiopia left to other countries in the past five years in search of better opportunities. Most of the migrants prefer the irregular and risky channel to leave the country as the legal pathway is not easy for different reasons. Therefore this study is conducted to guide the MOBILISE project as it decides on the design of the new circular talent development program in the horticulture field to be developed by the Dutch and local higher education institutes (Hawassa University) and further explore and possibly develop new legal pathways of circular migration, with the potential to scale-up to other countries and possibly other economic sectors.

## 1.1 Objective and Rationale of the Assessment

MOBILISE project is a 4-year project (2023-2027) financed by the European Commission, via the International Centre for Migration Policy Development (ICMPD) as donor agency, and implemented by Maastricht University - Maastricht School of Management (UM-MSM) in cooperation with Aeres University of Applied Sciences (Aeres) from The Netherlands, the Mediterranean School of Business (MSBSMU) from Tunisia, the Kafr El Sheikh University (KU) from Egypt and the Hawassa University (HU) from Ethiopia.

The project aims to contribute to the Migration Partnership Facility (MPF) program of the European Commission by setting-up a scalable, institutionally embedded circular talent development program between the Netherlands and Tunisia, Egypt, and Ethiopia in favour of strengthening climate-smart agriculture, both in Europe and in the participating countries. As such, it is meant to further explore and possibly develop new legal pathways of circular migration, with the potential to scale-up to other countries and possibly other economic sectors. The project planned to conduct a need assessment or scoping studies in the four countries and this study report focuses for Ethiopia.

The overall objective of this scoping study is to guide the MOBILISE project as it decides on the design of the new circular talent development program in the horticulture field to be developed by the Dutch and local higher education institutes. Specifically, the scoping study is conducted to:

- Enable the MOBILISE project to prepare an agenda of priority cooperation areas within the theme;
- Identify on-going work and lessons learned within the scope of the theme by other donors and related institutions; and
- Identify potential partners and relevant stakeholders; and provide recommendations that enable MOBILISE to build a coherent programme within the policy framework of circular migration.

## 1.2 Report Structure

The report is structured in nine sections. The first section focuses on the general Introduction and objective of conducting the scoping study while the second part narrates the general review of literature on Migration and Horticulture. The third and fourth section present the Methodology of the study and a detailed analysis of the horticulture sector respectively. The report has also an explanation of the Labour market assessment as well as the review of higher education institutions in agribusiness. Finally, the report contains the conclusions and recommendations derived from the assessment.

## 2 Literature review

### 2.1 Literature available

#### 2.1.1 Horticulture sector

According to Belew and Soon (2014) “the term horticulture may be defined the science and technology that involve the production, processing and mechanization of fruits, vegetables, root and tubers, cut flowers and ornamental, beverage crops (coffee, tea etc) and herbs and spices medicinal plants.” But the Government only includes in the Ethiopian horticultural sector fruits, vegetables, flowers, herbs and spices (treating coffee, tea and root and tubers separately).

Ethiopia has huge surface and groundwater resource with a diverse of agro-ecological zones which enables the country to produce for a wide range of crops across the season. The horticulture sector at the moment covers a land area of 10,897.21 hectares and employing 199,640 Ethiopians. The sector is the fourth largest contributor of export income for the country in US\$ 307.04 million in the year 2017/18. Floriculture contributes much of the share in around 79% while the expanding vegetable, fruits, and herbs have 21% share of the revenue.

#### 2.1.2 Circular migration

##### *Basic concepts and relevance of Circular migration*

Different scholars and institutions defined circular migration. For example, EMN (2011) defined Circular as a repetitive legal migration of a person between two or more countries. In addition, the Global Forum on Migration and Development (GFMD, 2008) defined circular migration as “the temporary, recurrent movement of people between two or more countries mainly for purposes of work or study”.

Circular migration is recognized as an important form of migration that allows the transfer of skills/knowledge resulting in a win-win mechanisms to fill the skill need and supply of different countries (European Commission, 2007). Circular migration allows the transfer of skills between countries without the permanent outflow of knowledge and skills from developing countries which minimizes the risk of brain drain. From the country of origin perspective, circular migration also allows the gain of experiences through the acquisition of new skills, ideas, technologies from the destination countries that can be used back in the country of origin (GMG, 2010). IOM 2021 annual report advocates the importance of protecting the rights of migrant workers to benefit from migration for development. The crises COVID-19 highlighted the need of enabling safe, orderly and regular migration as irregular migration results in poor management of the dissemination of the pandemic (IOM, 2020). The Global Commission on International Migration (GCIM, 2005) also promotes circular migration to maximize

development and argued that governments and international organizations should formulate policies and programmes to ensure legal pathways for circular migration. The positive contribution of migration and hence the need to face the challenge and maximize opportunities is also part of the 2030 Agenda for Sustainable Development.

### *Migration: In Ethiopian context*

Ethiopia is one of the top host countries for refugees coming from different countries. According to the 2022 UNHCR report, Ethiopia hosted a total of 837,533 refugees coming from 26 countries. Ethiopia is also a source of migration flows and the rate of both skilled and unskilled emigrants is increasing as compared to the past (Asnake and Fana 2021). A study by Semela and Cochrane (2019) revealed that majority of skilled Ethiopians have migrated to the US, Italy and Canada for education and employment opportunities, while a majority of non-skilled workers migrates to Saudi Arabia. Studies have shown that among the main drivers of migration from Ethiopia there are political and socio-economic factors such as political instability, unemployment, and poverty (Guday and Kiya 2013).

IOM reported that more than 839,000 migrants from Ethiopia left to other countries in the past five years in search of better opportunities. The 2021 Labour Force and Migration Survey stated that majority of the Ethiopian migrants use the irregular channel as the legal pathway is not easy for different reasons. Though the irregular channel is described as cheaper, less bureaucratic and less time taking, Ethiopian migrants often experience great perils and are exposed to a wide range of risks on these migration journeys. This irregular movement of both Ethiopian migrants and refugees resulted in a concern about the need to regulate and manage the mobility from and to Ethiopia (Kiya 2021). As result of this concern, different legal and policy instruments have been developed by the Ethiopian Government together with other concerned stakeholders. In this regard, in its 2021 annual report, IOM Ethiopia stated its support of the Ethiopian Government to meet the needs of migrants and their communities and promote the benefits and address the challenges of migration. IOM strives to ensure a well governed migration aiming at empowering individuals, families and nations attain their development aspirations. The broad intervention of IOM Ethiopia includes Migration Governance (migrant protection and assistance, safe and dignified return and sustainable reintegration, immigration and border management, labour mobility and human development, migration policy), Migration Health, Migration Movements and Emergency and Post-Crisis (IOM, 2021 annual report).

## 2.2 Inventory of similar projects in the country

Different international and local governmental institutions are working together to properly manage migration in general. The 2021 IOM annual report provides a clear overview of the migration related activities undertaken collaboratively. These activities include migrant rights protection and assistance, facilitation and support for safe and dignified return, sustainable reintegration of returnees, immigration and border management, labour mobility and human development, migration, health and emergency support. In addition, IOM supports the Government of Ethiopia in developing migration policies and other strategic interventions. The support of IOM specifically in circular migration is not vividly explained. However, the IOM's intervention to strengthen the capacity of TVET colleges to provide quality training to prospective migrant workers can be considered as a good start in supporting the Ethiopia's current policy to enhance circular migration between Ethiopia and the Gulf countries. The data obtained from the interviews also witnessed the inadequacy of efforts made for enhanced circular migration by different institutions working in migration. The draft migration policy developed for Ethiopia also does not have detail coverage for circular migrations, and an informal discussion is started to have a specific policy framework for circular migration.

Even though, Ethiopia doesn't have rich experiences like Philippines and others developed countries in the circular migration practices, encouraging steps has been taken by the Ethiopian Government. In this regard, MoLS is managing the overseas employment initiative through government to government approach with Jordan, Qatar, Saudi Arabia and the United Arab Emirates. In addition, the information obtained from MoLS also shows the initiative started discussing with Canada, Germany, Sweden and Russia. According to the interview with IOM, the Government of Ethiopia has requested IOM in its COMPASS project framework to conduct an assessment of European labour market requirement that could be an input for the government to work to meet the requirement based on the possible opportunities offered by the European countries. The assessment report is finalized and to be validated soon that could be an input for the MOBILISE project as well. The IOM also mentioned the absence of a positive trend in the increase of circular migration pathways between the EU countries and Ethiopia. Ethiopia signed the Ethiopian refugees return agreement but did not act to return Ethiopian refugees living in Europe. This may have its own impact for future migration relation. In general, due to different reasons, the visa denial for Ethiopians who are going to Europe for tourism or any short business activities is not small.

The Ministry pointed out that there is a need for skilled labour by the European countries and other developed nations. However, agreements at country level may not be realized in short time. On the other hand, European countries allow the recruitment

of Ethiopian skilled professionals at micro-level through Business-to-Business agreement. For example, a construction company based in Germany hired six engineers from Ethiopia. Also IOM does not foresee inter-country bilateral agreement between Ethiopia and Europe in a short time and advises Ethiopia to capitalize on the bilateral agreements made between Ethiopia and specific business organizations in Europe.

## 2.3 Lessons Learned and Best Practices

### 2.3.1 Experience from MoLS

MoLS has recognized the multifaceted advantage of legal pathways for circular migration. In this process, different Ministries that have stake to migration are working together and developmental organizations such as ILO, IOM, World Bank, GIZ and others support this initiative. The MoLS Overseas Employment Division has mentioned the following achievements and areas of improvement, based upon their experience with Ethiopian migrants to the Gulf countries.

#### *Achievements*

- A pre-departure training manual was developed by the ministry in 2016 together with EU, ILO and UN Women (ILO 2016). TVETs provide occupational training to migrants and provide certificates of occupational competence in line with the occupational standards for labour migration developed by MoLS.
- Rights protection of workers in the countries where Ethiopia signed bilateral agreements was hugely improved. The migrants have legal documents to work in the destination countries with clear roles and responsibilities in the employee-employer relationships. This minimizes the risk of the violation of migrants' rights. In addition, the individual migrants can easily report any misconduct or violation of their rights through the agency that facilitated their recruitment process on behalf of MoLS.
- The digital system employed has made the overall migration process efficient including acquiring and recording migration data.
- The migrant workers have got an arranged opportunity to save their income in their own bank account which helped them to reduce significantly the misuse of the money they earned.
- Obtaining foreign currency through remittance and formal saving arrangement for migrant workers was improved.
- The training and pre-departure orientation given for departing migrants helped the migrants to know the basic skills and knowledge that can help them start their own job on arrival. The awareness created also helped migrants to reduced anxiety and provided them with a relative psychological stability as they are aware of basic information they will face upon arrival before their departure. One of the issues the employers of Ethiopian migrant raised was the inability of workers to start work immediately as they need language and proper domestic work training. This was also an additional cost for the employers. Therefore proper training is both



relevant for the employer and migrant worker, which further increase the demand of Ethiopian workers.

#### *Areas of improvement*

- MoLS with support given by GIZ is providing different short-term training for migrants going to the Gulf countries. MoLS identified 94 TVETs to provide such short-term training. Most of the migrants came from the rural part of the country, where they usually do not have access to home appliances. Providing awareness as well as training to have a better understanding of different skills requires a relatively longer time, such as a minimum of 3 months training for domestic workers. The TVET Colleges need to be capacitated with the required facilities and equipment to provide adequate training.
- MoLS has engaged in facilitating the recruitment of skilled labour to the Gulf countries. One of the alarming issues is the low capacity of Ethiopian graduates to pass the selection exam to be hired by the other country. Recently, Saudi Arabia requested to hire nurses from Ethiopia and only few of the nurses were qualified to the exam by recruiters. Hence developing a talent that could meet the destination country's need is a critical step to be taken seriously by the education sector.
- Managing the migration process requires the engagement of different local and international institutions. Though integration among different local government offices has shown improvement, there is still need for a more strengthened integration among local offices serving the Ethiopians striving to get overseas employment.
- There is a latent demand for skilled labour by many European as well as other developed countries. Unexpectedly, there is huge demand of Ethiopian workers by South Sudan and many Ethiopians are working there through their own ways. Hence, the government has to extend the good start in having a bilateral agreement between countries as well as business to business agreement when G2G is not possible.
- IOM also pointed that it is difficult to respond to the global labour market needs with the current system and capacity of the Ethiopian Government. There needs a huge investment in capacitating the training institutes / universities and TVETs/, stakeholders involved in the management of labour migration including MoLS, developing efficient systems, policies and directives, establishing a decentralized service for migrant workers across the country and etc.

#### **2.3.2 Hawassa University**

The university encourages student and staff exchange programs with different organizations to produce competent graduates. As part of this strategy, Hawassa University, College of Agriculture has been working with Weihenstephan-Triesdorf University of Applied Sciences from Germany. Based on the agreement, five BSc

students completing 3rd year went to Germany in 2022 in the summer period to have a better understanding of the European agricultural practices. Among the 5 students, two of them didn't get back to Ethiopia. One of the potential risks of sending students to the Netherlands mentioned by the Embassy of the Netherlands is how to ensure all students return to Ethiopia after completing their internship period. The Embassy also stressed the EU as well as The Netherlands government has huge concerns in migrants that don't possess legal documents. Hawassa University stated that the main lesson learnt from students' international exposure visit is the setting of proper criteria for selection of students. In this experience, only academic performance was used for selecting students, while not considering other important parameters like their entrepreneur skills, discipline, intension to come back, language capability and gender composition. Hence they suggested a strong selection criteria backed by a strong orientation and good incentive package when they get back to Ethiopia. In addition, strong monitoring and follow up need to be in place while students are in The Netherlands. The visa process was actually easy and invitation letter from hosting institutions were the only requirements. In this regard, the Netherlands Embassy also suggested to process the visa ahead of time by fulfilling the requirements.

### 2.3.3 Bahir Dar University Maritime Institute

An interview was made with the Human resource and administrative manager of Bahir Dar University Maritime Institute and the information obtained is as follows.

The Ethiopian Maritime Institute is established by the collaboration of Bahir Dar University and a company from Israel to produce a competent cadet and marine engineers to the world market. The institute designed a world class academic programs as per the international labour market demand. The program has set very rigorous selection criteria to admit students followed by a tight technical, theoretical and behavioural training. The institute graduated more than 2000 students, in which about 90% of them are employed in the global market. Most of the employers/ship owners of the graduates are from Europe, America, Canada and Austria. Originally, most of the graduates were engaged in cargo ships, and now there is a trend of requesting graduates for tourism and passenger ships. This is because, the employer found Ethiopian cadets and engineers as one of the most top performing employees in the labour market.

The success factor for the institute is the quality of training in producing a global competent graduate with the required skills, knowledge and attitude. This institute could be used as a benchmark for other similar talent development programs to meet the need of the international labour market need. In addition, the institute is not only providing the training but also arrange the recruitment of the graduates. The institute has branches in Addis, Germany and other countries to manage the recruitment and

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other foreign employment facilitations. The employment arrangement is circular, in which a graduate will have a contract with a ship company for a period from 6 to 10 months and will get back home to go for new contract. There are also different levels of certifications from a cadet to the highest level of chief engineer that requires a reiterative training and work, with different exams by independent quality assurance institutions including the Ethiopian Maritime Authority.

Currently many ship companies are requesting the institute for graduates and the institute is not able to train the students because of the current political instability. In the overall process, even though Ethiopian graduates are very competent in skills, knowledge and work ethics and professionalism, language and communication skills are reported as a critical issue to work on. To fill this gap, the institute included one language course in the training program and made English the only communication medium not only in the actual learning process but also with any communication of the teachers and administrative support staff. This rule is a very strict one and a student code of conduct is also posted in the buildings of the institute.

The other potential challenge which was low but aggravated by the war in the northern Ethiopia was the desertion of graduates. To minimize the risk, graduates had to sign a property or cash collateral embedded contract.

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## 3 Methodology

### 3.1 Research approach

In this scoping study, mainly qualitative research method is employed, beginning with a desk review of existing articles and reports of different organizations backed by the primary qualitative data collection technique. A deeper insight is obtained from relevant stakeholders such as horticulture companies, institutions working in horticulture, migrations and education sectors. In addition, a validation workshop shall be organized to validate the findings, recommendations and get additional inputs to enrich the study.

### 3.2 Data Collection

In this study, both secondary and primary data were collected. Primary data were collected using semi-structured interview through face to face, phone and virtual modalities and secondary data was mainly collected by gathering different organizations' reports, research articles, different policies, regulation, proclamation and educational materials such as course guidebooks, curricula, and other documents.

#### 3.2.1 Interviews

A semi-structured interview was conducted to different groups of stakeholders such as Hawassa University (a total of 6 staff namely Academic Affairs Dean, Faculty Dean and MOBILISE project HU coordinator, Incubation centre, Employability centre, Coordinator of Horticulture program and Head of Agribusiness department), IOM, the Netherlands Embassy, 8 private companies working in horticulture sector, Bahir Dar University - Maritime Institute and government offices such as Ministry of Education and MoLS. Most interviews were made in local language for local interviewees for better understanding to obtain adequate data and most Institutions for interview were selected purposefully as they have relevant information for the study. In addition, the selection of private companies was done based on predetermined criteria of inclusion. Among the list of private companies, those companies with a relatively good size / with an employee more than 100, involved in both local and export markets and a company that has a culture of hiring their employees from the labour market on a competitive basis were selected. In addition, the study considered to include companies that produce major horticultural products such as fruits, vegetables and flowers. To identify those companies, a preliminary assessment was conducted using different mechanisms such as checking their websites, fetching their own and others previous experiences through different networks and getting advice from Hawassa University on companies working with them. The attempt to interview women owned or managed companies was not successful as almost all of the companies are managed by men. We found out about one farm owned by a female entrepreneur and we were not able to interview her as she is not currently living in Ethiopia.

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Lastly, it is good to note that some organizations such as Entrepreneurship Development Institute (EDI) and Bahir Dar University entrepreneurship centre were asked about the different active incubation centres they work with. Amhara Regional State Bureau of Labour and Training was also asked about the core functions of the one -stop service centres for employability of job seekers. In addition Bishoftu Polytechnic College was also requested to share with us the experience of TVET training for workers going to the Arab countries. A phone call to one university professor as a resource person in horticulture was made to figure out the agriculture research specialization areas.

### 3.2.2 Desk Review

Different articles and reports were collected from the Internet. The desk review has given a clear idea of the general migration and circular migration practices in Ethiopia in particular. In addition, a detail understanding of the horticulture sector in terms of the sector's potential growth, challenges and opportunities was explored. There was also a desk review associated with the Education Sector which focused by far and large on the legal documents that were enacted recently to improve the quality of education in general and the higher education sector in particular.

## 4 Mapping of the national horticulture sector

### 4.1 Overview of the national sector

Nowadays, horticulture is becoming a fast growing and important sector in the Ethiopian economy. The rapidly growing demand for horticultural commodities and products together with the booming floriculture market as well as the growing market for fresh and processed fruits and vegetables are evidence for the growth of horticulture in the country. According to Ethiopian Embassy Belgium (2017), there were at that time over 130 investments in the sector, made up of Ethiopian investors (56), foreign direct investors (64) and joint venture partnership (10). Flower farms had holding of 1,426 hectares, while fruits and vegetables did have 11,371 hectares. The sector hired approximately 183,000 persons and had been growing rapidly, generating 275 million dollars in 2015 - 2016 compared to 28.5 million dollars in 2004 - 2005. This made the sector the fifth that created hard currency for the country for the fiscal year 2015/16. But the rank of the horticulture sector as source of exchange earnings improved year by year and for the fiscal year 2021/22 it stood third place. Thus, horticulture production is an important component of Ethiopian agricultural production system.

The Newsletter issued in Feb 2022 by the Ministry of Agriculture, Nature, and Food Quality of The Netherlands, the Ethiopian horticulture policy and revised roadmap and strategy also show efforts of a clear strategic and planned development of the horticultural sector. The revised policies and strategies had prioritized commodities to focus on, among which avocado and mango are among the commodities recognized as quite promising in the country's horticulture sector. Generally, the horticulture sector is a government priority area and there are also other opportunities to further promote the sector. In this regard, the conducive environment to cultivate a range of horticultural crops due to its numerous agro-ecological areas with their diversified soil type and climate, the good amount of water supply for irrigation (including 125 billion cubic meters of surface water and 2.6 billion cubic meter of ground water), the increasing supply of infrastructure facilities. Other opportunities include cold chain facilities at three international airports (Bole, Bahir Dar and Hawassa), rail transport network to Djibouti and the incentive package provided by the government, that have all contributed to growth of the horticulture sector in the last decade. In addition to its many natural resources, the country has location advantage for its proximity to the markets of Europe and the Middle East, and possess good freight links to most major markets for horticultural products such as Western Europe, the Middle and Far East, Russia and the USA (Ethiopian Embassy Belgium, 2017). On the other hand there are challenges for the horticulture industry mentioned at length during the interview made with the horticulture farms. These challenges are, among others, shortage of foreign exchange which has made difficult to import farm inputs from outside, the frequent

power outage which caused disruption to the continues power need, especially for the cold houses and the irrigation pumps, and in turn resulted in higher cost of production due to the use of diesel generator. In addition, there are bureaucratic hurdles cited by the farm owners, such as the cumbersome import processes or the delayed renewals of farmland lease agreements with the government. In addition, the security issue, corruption, turnover of government officials and frequent policy changes, especially for foreign exchange, were also the challenges mentioned during the interview.

## 4.2 Focus on the relevant horticulture subsectors

### 4.2.1 Four main subsectors

#### *Floriculture*

According to the Ethiopian Embassy Brussels (2017), at that time floriculture contributed 225 dollars or 80% of the total foreign revenue earnings of the horticulture sector. Roses made up about 80% of the production and the country was recognized for its high quality, long stems, large buds and vibrant colour for its roses. In addition to the rose farms, five farms were producing cuttings and eight farms produced variety of other species of flower including gypsophilia, hypericum, limonium chrysanthemum, carantions, static, pot plants and a range of summer flowers.

#### *Fruits*

According to the Ethiopian Embassy Brussels (2017), Ethiopia has a tradition of producing fruits, like banana, pineapple, mango for local market and export to the neighbouring countries. According to the Newsletter of EHPEA it is only recently that the investment has been made in large scale production and the production such fruits as strawberries, table grapes and passion fruits. Lately engaging in large scale and modern fruit production has increased and fruit production and export is seen as an area that has enormous potential for development.

#### *Vegetables*

According to the Newsletter by EHPEA, there are 31 farms all around the country that export vegetables. These farms produce such vegetables as green beans, snow peas, tomato, paprika, eggplant, baby corn, onions and physalis. The presence of fertile land, labour and water for irrigation in conjunction with the cold chain facilities existing at three airports and rapidly improving road and rail transport network all contribute to Ethiopia being the right place to invest in vegetables production.

#### *Herbs and spices*

According to the Ethiopian Embassy Brussels (2017), the main spices cultivated in Ethiopia are ginger, hot pepper, fenugreek, turmeric, coriander, cumin, cardamom and black pepper. And at that time, around 122,700 hectares were planted with spices and

production reached 241,000 tonnes per year. Potential areas for the cultivation of spices are the Regions of Amhara, Oromia, Southern Nations, Nationalities and Peoples Region, and Gambella. The total potential for lowland spice farming is estimated to be 200,000 hectares. The companies already engaged in spice and herbs production were highly productive and produced over 21 varieties, which find their way to local and international market destinations. In order to comply to enter the European food market, production standards are high and all investors in the sector adhere to the Good Agricultural Practice and Food Safety Standards.

#### 4.2.2 Sectorial cooperation Country – The Netherlands

As previously mentioned, Ethiopia is now the second-largest flower exporter among the African countries and among the top four exporting countries worldwide. According to the interview given by Mr Tewodros Zewdie in the Nov 2022 issue of Floriculture International, the floriculture industry in Ethiopia has become a very important economic sector, representing the second agricultural item generating FOREX, next to coffee, and the third national export item, next to coffee and gold. For example in the 2021/22 Ethiopian fiscal year, the total amount from the export of flowers was 541 million USD which had increased exponentially in the last years. Nearly 80 per cent of the total export goes to Europe, basically to the Netherlands. In addition, the country is a beneficiary of the Everything But Arms (EBA) Scheme of the European Union. This scheme allows developing countries to export to EU member states without tariff and quota.

Furthermore there is attempt to diversify the market to reach other countries in the North such as USA and Canada and to some Far Eastern Countries such as Japan and Korea. There is also some market growth of the flowers from Ethiopia in the Middle East and some flowers are even exported to Australia and Malaysia. The sub-sector has created quite a number of employment opportunities for Ethiopians of which nearly 80 per cent are taken by women. The interview made with the flower producing companies has also shown the higher proportion of female workers.

According to the Newsletter issued in June 2023 by the Ministry of Agriculture, Nature, and Food Quality of The Netherlands, the Netherlands Government has been committed to strengthen the enabling environment of the horticulture sector in Ethiopia. This has been realized through the support to the Ethiopian Horticulture Producers Exporters Association in order to increase food security and safety of horticulture producing smallholder farmers and consumers and promote sustainable and inclusive production. The interview with the agriculture development division of the Netherlands Embassy in Ethiopia also confirmed the sustained interest and commitment of the Netherlands Government to support and invest on the agriculture sector in Ethiopia. More specifically, the Netherlands Government gives priority to



horticulture, dairy and poultry sub-sectors. Currently 90 Dutch companies are operating in Ethiopia, 80 % of which are in the agriculture sector and 32 of the companies are in Horticulture.

#### 4.2.3 Productions in the region of partner University

The conducive environment presented at the general country level is also relevant for Hawassa and its environs. A particularly favourable condition for Hawassa is the nearby airport, which can be an asset for direct product export by air from the Hawassa area. In fact, there is also an expressway nearing completion, which will drastically reduce the road journey between Addis Ababa and Hawassa. In addition, the area is relatively flat. According to the interview data, Sidama region has a huge potential for fruit production. In addition to fruits like banana, mango and papaya, the commercial production of avocado is growing at increasing pace. Many farmers are producing avocado to supply the avocado oil processing companies established in the Yirgalem Industry Park. Kidabo farm, one of the interviewed companies, is growing avocado to process avocado oil for the export market.

### 4.3 Mapping of sectorial stakeholders

#### 4.3.1 Stakeholder groups and their roles

TABLE 1: List of Stakeholder groups and their roles

Stakeholder group	Roles in MOBILISE project
Private sector	Platform member Host students for internship /apprenticeship Provide inputs for their needs for circular talent development Take part in the Netherlands training
Public sector	Support the implementation of the program Develop policies, directives for both talent development and migration
Universities and research	Design a strong academic program, Production of competent graduates
International development organization	Provide technical & financial support for talent development and circular migration Provide capacity key players Influence the government on the development of policies and guidelines

### 4.3.2 Inventory of most relevant stakeholders

#### *Professional organizations and Public Authorities*

TABLE 2: Inventory of professional organizations and Public Authority

<b>Organization name</b>	<b>Organization type</b>	<b>Information source</b>	<b>Area of influence / Services description</b>	<b>Recommended engagement*</b>
Ethiopian Horticultural Science Society (EHSS)	Professional organization	Personal Communication	Conduct research, organize research conferences and disseminating research outputs	Inform and consult in Research and curriculum development
Ethiopian Society of Post-Harvest Management (ESPHM)	Professional organization	Personal Communication & webpage	Create platform for professionals to discuss and share experiences, provide different support for postharvest related initiatives as well as create network and partnership	Inform and consult in Research and curriculum development
Ethiopian Horticulture Producers Exporters Association (EHPEA)	Professional organization	webpage	promote Competitive Position of Ethiopian Horticulture Sector in the Global market	Engage in national platform Take part in the development of market oriented curriculum, bring members onboard for internship, hiring returnees, participate in platform
Ministry of Agriculture	Public Authority	proclamation	Create enabling environment for the overall agriculture sector. identify large agricultural investment opportunities and potentials and devise a strategy for the expansion of large-scale agricultural investment;	Platform member Provide technical / administrative to overcome sectorial challenges and design strategy for the sector
Regional Bureaus of Agriculture	Public Authority	Personal communication	Support the overall horticulture sector value chain to increase the productivity and quality of the sector with the aim of enhancing export, food security, nutrition and overall investment	Inform-Work with local university in different sector specific initiative Provide technical / administrative to overcome sectorial challenges and design strategy for the sector

Ministry of Labour and Skills	Public Authority	Proclamation & Interview	regulate the Ethiopians overseas employment in collaboration with concerned organs	Engage in national platform Engage in project activity- Both talent development & circular migration
Ministry of Education (MoE)	Public Authority	Proclamation & interview	ensure standards required of higher education are set; and quality and relevant education are delivered	Engage in National Platform Engage in project activity in design need based education programs and curriculum

### Private Companies

TABLE 3: list of private companies

Company name	Sector	Location of operation	Main product	Dutch/ European partners (if applicable)	Interview (Y/N)
Joytech Fresh	Horticulture	Bishoftu	Herb, Vegetables and summer flowers	Joytech BV	yes
Minaye Farm	Horticulture	Bishoftu	Cut Flowers especially roses	HSI input supply, AQ-Rose-unpacking service, Flora Holland	yes
Roshinara Farm	Horticulture	Bishoftu	Tomato, pepper, cabbage, flower-Roses	Global flower service, Express flow XPOn, Vande Hoorn	yes
Jituu farm	Horticulture	Bishoftu	Vegetables such as onion, pepper, tomato, lettuce head cabbage, broccoli	N/A	yes
Mulualem farm	Horticulture	Wolayta sodo	banana, papaya, tomato, watermelon, seed production on tomato, paper	CBI	yes
Meki-Batu	Horticulture	Ziway	Fruit such as watermelon and papaya; vegetables such as green bean, egg plan onion, tomato, head cabbage and pumpkin, and Herb as Rosemary	N/A	yes
Aq Rose	Horticulture	Ziway	Roses		yes
Gidabo integrated farm	Horticulture	Lokka Abbaayya	Fruits: banana, papaya, avocado and have a plan to avocado oil processing	SNV, GIZ	yes
Jara agro-industry plc	Horticulture	Bilate, /Wolayit a zone	Fruits and vegetables	Switzerland fruit propagator company	yes

Herburg Rose	Horticulture	Ziway	Roses		No
Ziway Rose	Horticulture	Ziway	Cut flower /Roses		No
Klaver Flower	Horticulture	Hawassa	Flower		No
Lalimeta	Horticulture	Hawassa Zuriya	Mango and Papaya		No
Jara Agro-farm	Horticulture	Bilate area	Fruits and vegetables		No
Kirubeel Irsha	Horticulture	LokkaAbbaayya	Fruits and vegetables farm		No
Taamene Gobena	Horticulture	Lokka Abbaayya	Fruits and vegetables farm		No
BirhaanuAdmaasu	Horticulture	Lokka Abbaayya	Fruits and vegetables farm		No
Dibabilosh PLC	Horticulture	Lokka Abbaayya	Fruits and vegetables farm		No
Maygot PLC	Horticulture	Lokka Abbaayya	Fruits and vegetables farm		No
Almeeta lpx	Horticulture	Hawaasi Gaangaawa	Fruits and vegetables farm		No
Kadilla farmastikal	Horticulture	Hgangaawa	Fruits and vegetables farm		No

## Research organizations

TABLE 4: List of agricultural research organization

Agri. Research Center	Organization type	Information source	Services description	Interest for the project	Recommended engagement*
Melkassa	Public	Personal communication	Center of Excellence for Tropical fruits and onion	Knowledge provider	Inform and consult in Research and curriculum development
Debre Zeit	Public	Personal Communication	Focuses on Grape, garlic and native root crop called “Äñchote”	Knowledge provider	Inform and consult in Research and curriculum development
Holeta	Public	Personal Communication	Focuses on Highland fruits such as apple peach plum and center of excellence for potato	Knowledge provider	Inform and consult in Research and curriculum development
Jimma	Public	Personal Communication	Center is center of excellence for coffee and focuses on banana, pine apple, avocado, root crops such as cassava, yam, taro	Knowledge provider	Inform and consult in Research and curriculum development
Wondo Genet	Public	Personal Communication	Focuses on those herbs that are sources of essential oils	Knowledge provider	Inform and consult in Research and curriculum development
Tepi	Public	Personal Communication	Focuses on lowland spices such as ginger, black pepper, vanilla	Knowledge provider	Inform and consult in Research and curriculum development
Areka	Public	Personal Communication	Focuses on Enset	Knowledge provider	Inform and consult in Research and curriculum development
Hawassa	Public	Personal Communication	Focuses on Sweet potato, taro, cassava, hot pepper	Knowledge provider	Inform and consult in Research and curriculum development

Mehoni	Public	Personal Communication	Focus on Irrigated horticulture	Knowledge provider	Inform and consult in Research and curriculum development
Sirinka	Public	Personal Communication	Focus on Irrigated horticulture	Knowledge provider	Inform and consult in Research and curriculum development
Ardet	Public	Personal Communication	Focus on onion seed production and cassava	Knowledge provider	Inform and consult in Research and curriculum development

## 5 Labour market assessment

### 5.1 Labour market requirements

Ethiopia is the second-most populous country in Africa with a high proportion of youth. Higher Education access to the youth has expanded, resulting in an increase of university enrolment from 10,000 in 1990 to 360,000 in 2015 (Feed the Future labour market assessment report 2018). The report also added the country's huge investment on technical and vocational education and training (TVET) with purpose of producing semi-skilled labour that could fit to the needs of different sectors. As the labour supply side is producing thousands of graduates to the market, the demand side is yet to be improved. ILO (2017) reported approximately three million youth are joining the labour market which is not prepared to absorb causing a huge youth unemployment. A graduate tracer study conducted by Bright Future in Agriculture has shown that out of 228 crop and animal production TVET graduates, 64.19% of them were unemployed after 2 years of graduation. In addition to the limited demand for excess supply of graduates on the labour market, the other huge challenge aggravating the problem is the skills and knowledge of the graduates are not meeting the skills needs of the market. This "imbalance between demand and supply as well as quality issue will have a strong effect for increasing and long-lasting unemployment for Ethiopian youth as well low productivity by the employers in any sector.

Even though there is a slight change in the contribution of sectors to create employment opportunities, agriculture sector still remains to be a huge employer of both skilled and unskilled labour in the country. According to the Danish Trade Union Development Agency report (2020), the majority of workers (70%) are in subsistence agriculture, and from the total employment, 86% of workers have less likely to have formal work arrangement. In addition to the informality of work arrangement, the report also stated the challenges of the labour market due to different factors such as poor productivity of MSMEs to create jobs, under-qualified graduates due to poor linkage between the education system's supply and the labour market's demand. The interview made with the different companies and Hawassa University College of Agriculture, have also proved the weak relationship between the different higher education institutions and private companies for research and internship collaborations. As a result the gap between the labour market requirement and the supply become very huge. With the interview made with 8 companies operating in horticulture sector mainly in floriculture, vegetables and fruits, the companies require graduates with practical exposure to the real farm situations. These companies stated that the high competition and unpredictability of the local market together with the high perishability nature of fruits and vegetables affected their performance negatively, and hence a good marketing and logistics skill is required. All of the companies that export to international market stated international customer handling and communications, total quality management and logistics are very relevant. All the companies mentioned agronomical/ production as well as maintenance skills to work in technology controlled farms, postharvest management, protection or paste

management skills, as well a knowledge of the generally accepted agricultural practices are critical skills for the success of the farms. In addition, companies require soft skills such as leadership skills like coaching, communication, conflict management and self-management skills as they manage/work with more number of employees and workers, sales skills, international customer handling, problem solving, resource utilization are mentioned. Ato Bisrat, CEO of Joytech emphasized the importance of communication skill to deal with international customers working at different time zones. He added that customers always need immediate response for their requests or any complaint they have and the company need an employee with commitment to respond to such inquires promptly. In addition to the technical skill and soft skills mentioned, all companies raised the low level of readiness of the new graduates to work on farm. They pointed out that most of the university graduates like a job at office with a better salary which is not practically possible for a sector working in agriculture. Ato Mulualem, owner manager of Mulualem Farm stated that most of the graduates hired at his farm are from ATVETs with rural background and working in the farm is in the employees' expectation and did not face a challenge in this regard.

The other question raised to companies interviewed was their need in terms of academic programs/field of study that they are more interested. The companies are interested in hiring an employee graduated in Horticulture, Plant science or Crop production. The companies sometimes need a specialist in floriculture, herbs or vegetable for some research or any other specific activity. In this regard, companies normally don't hire a permanent employee, rather they contract a short-term consultant to fill the need of a specialized expertise. Due to this, companies don't expect universities to produce graduates with specialized field of studies.

In a nutshell the most important skills required by the recent horticulture farms include practical hands on experience in production, quality management, postharvest handling, logistics management including cold chain management, marketing, digital literacy, crop protection management and soft skills such as leadership skills, communications skills, conflict management skills, time management skills, taking personal responsibility and problem solving skills are mentioned as vital by the companies interviewed.

## 5.2 Skills gap

Ethiopia has given attention to the Higher education sector that created a significant access opportunities (ILO, 2022). However, the quality of education in producing competent manpower is a critical problem (Feed the Future, 2018). In this regard, a labour market assessment conducted by ILO (2000) also confirmed that there exists frustration with the limited skills available in the Ethiopian labour market while suggesting a need to further improve both the quality of education available to potential recruits and the matching of skills between the education and the job market. In addition a report by ILO (2022) identified skills such as laboratory testing, machine maintenance and repair, safety, hygiene and quality control, machine setting, and



machine operator roles requiring relatively high skills as the major gaps in the agro-processing sector. The “Skills Need Assessment and Gap Analysis” report conducted by GIZ (2019) also mentioned Social and environmental compliance, Talent (people) management, Compliance with standards of hygiene and food safety, Productivity and quality in manufacturing, Logistics and cold-chain management, Product development and technology transfer, marketing and sales as the main business capability gaps in agro processing sector. The data collected through interviewing the companies also confirmed the serious skill gap of graduates produced by higher learning institutions. Some companies have not only questioned the practical skill but also the theoretical knowledge of the graduates. One farm manger stated a sizable number of university graduates invited for interview were not able to answer very preliminary concepts in their fields of study due to a language barrier.

An interview was also made with team of academic leaders in the College of Agriculture at Hawassa University about the effectiveness of the teaching methodology to provide graduates with competent skill, knowledge and the right attitude. They believe that the skill gap among graduates raised by the companies are true as reading assignment and lecture, which by their nature generate learning mainly from a cognitive dimension which includes knowledge and comprehension of theories, facts, and contents of the subject matter dominate the learning. During internship, students stay out of campus for the internship period, hence a budget to cover their transportation, lodging and food costs need to be allocated. In additions, teachers need to travel to the company for supervision which also requires a budget. The Hawassa University team has pointed out the absence of practical attachment (2 months internship program) for more than 3 years due to budget constraint even though it is part of the curriculum. The College of Agriculture has also a limited laboratory facility to equip students with practical knowledge. The data obtained for both Hawassa University and companies interviewed has also shows the weak integration of the private sector and academic/ research institutions for students’ internship/apprenticeships and joint research endeavours. Only few companies hosted very few numbers of students in the internship programs which needs to be improved as it benefits both actors.

The language proficiency of students as mentioned by interviewed companies was also a challenge to the student’s overall theoretical understanding of the subject matter. In this regard, the team from Hawassa University mentioned that students with a better capacity in both language and 12<sup>th</sup> grade national exam score prefer other disciplines such as medicine and engineering. So most of the students joining the College of Agriculture are average scorers and mainly coming from rural areas. However, the College has very senior and competent professors who could fill the gap of students.

Most of the companies interviewed recognized the theoretical knowledge of university graduates and their motivation to learn new things. However, except some exceptional graduates, most of them lacks practical skill, as well as soft skills such as communication, critical thinking, conflict and self-management skills, leadership skills. In addition, lack of interest to work in the farm and work discipline is a critical gap of the new graduates. Due to this gap, companies primarily look for internal staff for promotion as the existing staff have a better hands-on experience over the new graduates. However, companies have to look for new graduates occasionally when it is not possible to fill the position by the internal staff. In such scenario, Companies invest on intensive on the job training for all new graduates joining their farm.

### 5.3 Expected developments

Ethiopia is a country experiencing both economic growth and a shift in terms of the nature of work from traditional, rural-based work to more of technologically advanced sectors like manufacturing. In addition, the perception of agriculture in general and horticulture in particular as livelihood activity has changed to a vibrant business sector. A report by Ethiopian Horticulture & Agriculture Investment Authority stated that investment in horticulture sector in Ethiopia is booming leading the country to become the second largest supplier of quality flowers from Africa. These shifts resulted in changes in the labour market requirement in recent past as well as in the future. These shifts in the labour market need were reflected in the interviews with the horticulture companies. The companies stated that it was difficult to find experienced horticulture experts 20 to 15 years ago locally and the companies were forced to hire international experts. Currently the labour market started providing experienced local experts and all the companies interviewed are managed by local experts replacing the expatriates hired years ago. However, finding a competent and experienced manpower in the labour market in good quantity is still the issue of companies.

The other shifts in the labour market is the need for an employee with advanced technology to manage technology controlled horticulture farms. In addition, the Ethiopian horticulture sector has been engaged beyond local markets, hence meeting destination countries quality requirement including practicing climate smart agriculture and generally accepted agricultural practice, international marketing, logistics and other advanced business knowledge is an essential element to remain competitive. Therefore, traditional way of agronomical production and marketing practices are no more adequate to satisfy the current need of companies. The interview from both private companies as well as Hawassa university has shown the need for improved training, education and up skilling of workers through improved linkages of employers to the labour market; an increased focus on practical training (as opposed to theoretical teaching) in technical universities and TVETs. More specifically there is a strong recommendation to work on student internship and

apprenticeship, teachers externships, joint research, and joint curriculum development between the universities/TVET and private sector. The universities are also recommended to install a system to invite industry/farm practitioners to teach students and the private companies need to plan to provide this mission that will have a positive advantage for their companies in developing better talent.

## 6 Higher Education in Agri-domains

### 6.1 The Higher Education System

The governance of the Education system in Ethiopia is under two ministries. The Ministry of Education (MoE) is responsible for two sub-sectors namely, Higher Education and General Education, of which each one of them is headed by a State Minister. The TVET sub-sector is housed in Ministry of Labour and Skills and a State Minister heads it.

The government changed the structure of the Education System and put in place other transformation actions recommended by the Ethiopian Education Roadmap 2018 - 2030. Accordingly, the following are some of the changes of the structure of the Education System (here emphasis will be made on Higher Education).

Ethiopia's 8-2-2 general education system which has been implemented for more than two decades has been replaced by 6-2-4 system (primary school- middle school- secondary school) starting Academic Year 2019/2020. Under the new system, students take an exam at the completion of grade six administered by the respective Regions and afterwards students sit for a national exam in grade eight.

In addition, ten<sup>th</sup> grade national exam is canceled and is replaced by a national higher education entrance examination, which is administered in grade 12. In this modality, students could also join TVETs from grade 12 if they meet the criteria for it. Thus, the TVET sub-sector by far and large is now becoming post-secondary education. In the case of TVET education system, there are occupational standards related to crop production which include horticulture in almost all agricultural TVETs across the country. The TVET Colleges offer Level I to IV certificates whereas the Polytechnic TVETs offer Certificates up to level V. The majority of TVETs in Ethiopia are under the Regions and enroll students from the respective regions only. However, there are five Agricultural TVETs (Agarfa, Alage, Ardaita, Gewane and Mizan) that are accountable to the Ministry of Labour and Skills which draw their students from all across the country.

The other element of higher education is the university structure. The public universities are accountable to the Federal Ministry of Education (MoE) and students can enroll in any of these universities irrespective of the region that he/she comes from. The eligibility criteria for admission to the universities as well as TVET is the to score greater than passing mark threshold in the National University Entrance Exam conducted by the Ethiopian National Educational Assessment and Examination Agency. Once students are assigned to a university, they will be given the opportunity to choose their academic programs of interest. Following up on the orientation given by the universities about each academic programs, students fill application forms

ranking 3 programs as per to their degree of interest. In most cases, students with good score get their first choice while other with low score may not get their first choice unless most students do not apply for that particular program.

The other new development is the differentiation of universities: The differentiation policy categorized the 47 public universities, which are accountable to the MoE as research, applied, comprehensive or specialized institutions. Accordingly 8 universities are categorized under research, 15 under applied, 21 under comprehensive and 3 under specialized educational institutions. According to the information from the MoE, there are about thirty public universities currently offering at least first degree programs in horticulture. Among them, Haramaya, Jimma, Hawassa, Bahir Dar, Arba Minch and Woliata Sodo Universities have PhD programs and relatively strong research programs in the sub sector.

The curriculum of the universities are mostly similar to each other. However, according to the informants of the private horticulture companies in the field visits, there are quality differences among the graduates. Some of the companies interviewed stated that graduates from Jimma University and University of Gondar are relatively competent. This is partly due to the exposure of students to practical learning facilities built in the universities through different collaboration of donor funded projects.

## 6.2 Inventory of most relevant institutions

TABLE 5: List of most relevant universities

Organization Name	Organization type	Location	Specializations and programs provided
Haramaya University	Higher Education	East Hararghe	BSc, MSc and PhD in Horticulture
Jimma University	Higher Education	Jimma Zone	BSc, MSc and PhD in Horticulture
Hawassa University	Higher Education	Sidama Region	BSc, MSc and PhD in Horticulture
Bahir Dar University	Higher Education	West Gojam	BSc, MSc and PhD in Horticulture
Arba Minch University	Higher Education	Gamo Zone	BSc, MSc and PhD in Horticulture
Wolaita Sodo University	Higher Education	Wolaita Zone	BSc, MSc and PhD in Horticulture

NB: There are 30 public universities including those in the above list that are offering at least BSc in Horticulture

### 6.3 Inventory of most relevant education programs

TABLE 6: Inventory of most relevant education programs

Program Name	Providing organization	Diploma / Certification awarded	Duration- (ECTS if applicable)	Delivery methods	Contents	Enrollment criteria
Horticulture	Universities	BSc	4 years (8 semesters)	Mixed course delivery approach*	Course work and senior research	Passing the National University Entrance Exam
Horticulture	Universities	MSc	2 years	Mixed course delivery approach	Course work and Thesis	BSc in horticulture or related Agr Science and pass entrance Exam
Horticulture	Universities	PhD	4 to 5 years	Mixed course delivery approach	Course work and thesis	MSc in horticulture or related Agri Science and Research Concept Note for the Thesis, and recommendation letter from employing organization
Crop Science	TVET Colleges	Certificate Level IV	2 years	Block for major Occupational Standard (OSs). Parallel for non-major OSs delivery approach	Course work and cooperative Training	Cut off point based on the National University Entrance Exam
Crop Science	TVET Colleges	Certificate Level V	Half a year	Block for major Occupational Standards (OSs). Parallel for non-major OSs delivery approach	Course work and cooperative Training	Possess a Level IV certificate in Crop Science

Note: The minimum credit hours for four years bachelor program shall be 200 European credit Transfer systems (ECTS) or 136 credit hours while the maximum is 280 ECTS or 152 credit hours.

## 6.4 Career Development Programs

Ethiopia is currently facing the challenge of high level of unemployment as well as underemployment. This is due to the imbalance between the supply and demand of manpower in the labour market. Hence Employment creation is a top priority of the government. The government has developed different laws and strategies such as the national employment policy and strategy, the labour proclamation, the industrial development strategy, decent work country programs with support of ILO and other international conventions that support employability.

To ensure the employability of graduates, career development and employability service provision centres are important. In this regard, the national employment policy and strategy recognized the lack of institutions that can provide different job market information for job seekers and employers, career development services, protection of labour rights, job security and other fundamental services. As the information obtained from Bureau of Labour and Training in Amhara Region, there exists a government structure under the MoLS called “one stop service” at sub-city level across the country working on the registration of job seekers to support graduates to get jobs. These centres support job seekers with concrete plans to start businesses by giving training on areas of their businesses, link them with finance institutions and city municipality for access to loan and land for their businesses. The centres are also mandated to provide career development support. On the other hand, there is not any support given to those job seekers aspiring employment except reporting the number job seekers who got employment.

The report by ILO (2020), indicated the limited access to employment services to TVET and university graduates as well as the lack of cooperation between public employment services and employers. To address this gap, ILO supported the Amhara Bureau of Labour and Social Affairs (BOLSA) in 2018 to establish the first Public Employment Services Centre (PESC) and a Youth Employability Services (YES) Centre in Bahir Dar City, in the Amhara Region. The centres core services include Job matching (registering and advising job seekers, liaising with employers and obtaining job vacancies and matching jobs with jobseekers), guidance and counselling services (career, vocational and employment counselling to jobseekers) and labour market information like collecting and disseminating labour market information and statistics and establishing a jobseekers’ and employers’ database to serve as a basis for labour market analysis. The project is supporting the establishment of an additional centre on the premises of the Amhara Chamber of Commerce and Sectorial Associations.

The other organization occasionally supporting new graduates in getting different training on employability skills and other core services is Dereja.com. Dereja.com organized a job expo for the graduates of 2022 in five universities namely Bahir Dar,

Hawassa, Addis Ababa, Harmaya and Jimma universities between June and August 2022. In the Expo, more than 4000 new graduates from the partner universities and different huge manufacturing companies and developmental organizations are participated.

In the interview made with College of Agriculture of Hawassa University employability development and career readiness centre, Dereja.com is not only working with supporting the organization of job expos but also provided training for staff and supported the development of standardized job skills training materials. There is a growing trend of establishing career development centres in Ethiopian public universities. One of them seen in detail is the centre at Hawassa University. Hawassa University has established an Employability Development and Career Readiness Center (EDCRC) with a vision of Empowering current undergraduate students and alumni by providing optimal and comprehensive career development services, assisting them to get employment or job creation opportunities and establishing strategic partnerships with employers and organizations in order to attain the graduates' career goals. The centre has branches in all campuses including College of Agriculture. The main services given to students include career guidance and counselling, providing training on employability skills development such as job search skill, cover letter and CV writing skills and interviewing skills, job placement through organizing job fairs and other networking approaches. The career centre at Hawassa University closely works with Derejea.com, and GIZ. Dereja.com invites employers' organizations to attend job fairs, gives capacity building trainings for career development centres' staff and provide certifications for the teachers as well as students who attend the training given by Hawassa University Career Centre. GIZ financed the development of standardized training modules. The university has experienced certified trainers to provide career development services such as career counselling and training in job search, interviewing and cover letter/CV preparation skill. However, the major gap according to the College of Agriculture Career Centre head is lack of resources to furnish the training rooms as well as reach out many graduates who needs the services.

According to the data obtained from desk review and interview, the availability of career development and employability service centres are very few as compared to the need. In addition, such centres are supported and driven by donor-based projects such as GIZ, ILO and Reach for Change.



TABLE 7: list of available Career development centres

Program Name	Providing organization	Services provided	Enrollment criteria	External partnerships
EDCRC	Hawassa university	Training, career coaching, job fair	Graduating class	GIZ, MasterCard Dereja.Com, Reach for Change
Entrepreneurship & Career dev't center	Wollo university	Training	Graduating class	Dereja.com, MasterCard
Career development centre	Bahir Dar university	Training, career coaching, job fair	Graduating class	Dereja.com, GIZ, MasterCard Dereja.Com
PESC and YES	Bahir Dar youth centre	Job matching, counselling and market Information	All job seekers	ILO
Government one stop service centres	In all sub-cities	Registration, business training, linking with finance and city municipality, report preparation	All job seekers	-
Program Name	Providing organization	Services provided	Enrolment criteria	External partnerships
EDCRC	Hawassa university	Training, career coaching, job fair	Graduating class	GIZ, MasterCard Dereja.Com, Reach for Change

## 6.5 Business Start-up Programs and Incubators

Government reports show the efforts made by the Ethiopian Government to promote entrepreneurship in the country. The entrepreneurship promotions are supported by different donors such as World Bank, GIZ, UNCTAD, UNIDO, MasterCard, and GAC. However, the focus on supporting technology-based start-ups is generally very limited. There is an effort by all public universities in establishing entrepreneurship and incubation centres, in which Hawassa University Business and Incubation Centre is one of them. UNDP through EDC's intervention has set up the establishment of centres of excellence in 5 public universities including Hawassa. In addition, the Ministry of Labour and Skills had started discussion to build incubation centres in the TVET system. As part of this initiative, GIZ has supported the set-up of entrepreneurship centres in 5 polytechnic TVET colleges namely Tegbared Polytechnic, Akaki, Entoto, General Wingate and Nifas Silk. A study by Briter Bridges and GSMA Ecosystem Accelerator program identified nine tech hubs namely Blue moon, start-up factory, Gebeya, Growth Africa, Iceadiss, xHub Addis and iCogs-lab in Ethiopia. The hubs provide different services in which some provide on co-working spaces or training, while others provide more individualised incubation support and funding seed money. According to the information collected from EDI, incubation centres like Orbit Health, Blue Space and Nice Innovation are also working actively in incubating tech ideas. BIC Ethiopia

(Business Incubation communities) is launched on October 13, 2022 to capacitate business incubators in supporting agri-tech, agri-business start-ups and MSMEs.

Hawassa University - Agricultural Business Incubation Center (ABIC) was officially established on July 3, 2018, with an appointment of a coordinator from the President Office. Prior to the establishment of the centre GIZ sponsored the training of teachers on building business idea that could help teachers to train their students. In addition to the incubation centre at the College of Agriculture, the university has two business incubation centres at the main campus called Technology Business Incubation Centre (TBIC) and Female Innovation Centre (FIC) which were operating for quite some time under the Vice President for Research and Technology Transfer. This centre has trained and supported over more than one thousand students at main campus. It has organized several business idea competitions each year to support students to turn their ideas into businesses through training and financial support. The main services of TBIC are training, technical and business mentorship, prototype development, organizing networking event and promotion of student’s ideas. Generally the centre listed issues such as limited awareness of students shortage of finance/seed money for testing, time of incubation and students’ classes, shortage of experienced coaches from the industry and from the university, accredited laboratories/machineries for prototype development and testing, limited customized standard training manual as a major challenge impeding the centre performance.

TABLE 8: list of agribusiness Incubators

Program Name	Providing organization	Services provided	Enrolment criteria	External partnerships
ABIC	Hawassa University	Training, mentorship, Space	Students with feasible idea	GIZ, EDI
Blue moon	Blue moon	Training, equity funding and space	Feasible, innovative, the size of the problem being tackled, the feasibility, potential for scale-up, and projected profitability of the solution in Agribusiness ideas	Mastercard Foundation, Growth Africa.
BIC		Capacitating agribusiness incubators Business support service for start-up and MSMEs	Agribusiness incubator, start-up and MSMEs	Addis Ababa Chamber of Commerce and Industry, adelphi, Growth Africa, Icehawassa, and Menschen für Menschen EU-funded

#### Legal framework for educational cooperation

### 6.5.1 Accreditation authorities

The main body responsible for approval and accreditation of educational programs in Ethiopia is the Education and Training Authority (ETA). This organization was formerly known as Higher Education Relevance and Quality Agency (HERQA). However, through its new name, its mandate is broadened to include as well all the subsectors of education including general education and TVET apart from higher education.

### 6.5.2 Policies and regulations

The main policy that governs the Education and Training sector is put forward as Education and Training Policy promulgated in early 2023. This policy lays out the general structure and framework of the three sub-sectors namely; general education, TVET and Higher Education (MoE, 2023).

Second in line comes the Proclamation No.1152/2019 which focuses on higher education (Federal Negarit Gazette, 2019). According to the interview with the official at the Academic Affairs Office at the Ministry of Education, there are directions for approval of new or revised programs even in public universities (which was not in existence up to now and was only relevant for private universities). According to these directions, before any new program is started or existing one is revised, need assessment need to be undertaken by a body which is outside the department that is going to house the program and pass through a validation workshop for the program where stakeholders from the industry partake. In addition, the upcoming direction also includes that programs in the public universities need to pass through the accreditation measures of the Education and Training Authority.

#### *International higher education programs or international mobility programs for students*

The regulation for international higher education or international mobility programs for students is put forward by the “Guidelines for the Accreditation of Cross-Border Higher Education in Ethiopia Number 579/2021” (HERQA, 2021). According to this guidelines the following are put in place (among others) concerning international higher education programs or international mobility programs for students:

A foreign higher education Institution is allowed only to offer higher education programs at Master’s and PhD levels.

The Foreign Higher Education Institution (FHEI) should offer only programs that have been properly accredited by an accreditation authority in their country of origin.

An Ethiopian higher education institution that seeks to operate in a collaborative arrangement with a FHEI shall be essential to seek accreditation from HERQA.

According to the interview with the Academic Affairs Office at the MoE, in addition to in country accreditation of the HE programs, there is now an initiative started mainly

by three universities (BDU, ASTU and AASTU) to get international accreditation from Accreditation Board for Engineering and Technology (ABET) to get their engineering programs accredited. This initiative is encouraged and supported by the MoE and it will be scaled up to other universities in the country. Getting such accreditation will pave the way for the graduates to get employment in the Gulf States and elsewhere in the world.

## 7 Legal and Policy Framework

### 7.1 Immigration and Labour Laws

In addition to domestic laws, Ethiopia has accepted different international and regional conventions to protect the interest of migrant workers. One of the human rights stated by the FDRE constitution (Art 32) is the freedom of movement. Ethiopia has accepted different international conventions related to migration. In this regard, the migration governance indicators study for Ethiopia listed the conventions Ethiopia has ratified. Such conventions are United Nations Convention relating to the Status of Refugees, 1951, Convention on the Rights of the Child (CRC), and United Nations Protocol to Prevent, Suppress and Punish Trafficking in Persons, especially Women and Children, supplementing the United Nations Convention Against Transnational Organized Crime and others.

Ethiopia has also developed migration related proclamations such as Prevention and Suppression of Trafficking in Persons and Smuggling of Migrants Proclamation No. 909/2015, Ethiopia's Overseas Employment Proclamation Amendment (No. 1246/2021), Diaspora Policy, Immigration Proclamation and Refugees Proclamation.

Among the proclamations executed by the government, the Overseas Employment Proclamation has a greater importance for circular migration through talent development. The Ethiopia's Overseas Employment Proclamation Amendment (No. 1246/2021), a revised version of Overseas Employment Proclamation (923/2016), is developed in response to the growing number migrants and abuse against Ethiopian migrants. The proclamation aimed at providing protection to labour migrants and regulating overseas employment of Ethiopian nationals. The proclamation set up a board composed of different ministries to coordinate relevant stakeholders towards strengthening the implementation of overseas employment and ensuring that the rights, safety and dignities of Ethiopians employed overseas are protected. The proclamation specifies the working conditions of Ethiopian migrants to work in those countries and sets requirements certificate of occupational competence. In addition, the proclamation permits three types of overseas recruitment: recruitment through public employment services, based on intergovernmental agreements, recruitment through PEAs and direct employment. In any of the recruitment mechanisms, a written employment contract approved by the Ministry of Labour and Skills (MoLS) is required. A Code of Conduct for Ethiopian Overseas Private Employment Agencies is also developed and implemented.

## 7.2 Policy and Strategy Framework

Ethiopia prepared a draft national migration policy, which is expected to be approved soon. As part of promoting legal pathways for circular migration, the Ethiopian Government has signed a bilateral labour agreement with 4 countries namely Jordan, Qatar, Saudi Arabia and the United Arab Emirates. In addition, the information obtained from MoLS also shows the initiative started discussing with Canadian, German, Swedish and Russian Governments. The ministry pointed out that there is a need for skilled labour by the European countries and other developed nations. However, Government to Government agreements may not be realized in short time. On the other hand, European countries allow the import of skilled manpower at micro-level through Business to Business agreement. For example, a construction company based in Germany hired six engineers from Ethiopia.

Ethiopia is part of the EU Migration Partnership Framework (MPF) that aims to sustainably manage migration flows by engaging in humanitarian assistance, return of migrants to countries of origin and transit, and address the root causes of irregular migration and forced displacement in countries of origin (Castillejo 2017). This framework has 12 strategic focus and circular migration is not the priority of the plan of action.

Ethiopia is also part of the Regional Ministerial Forum on Migration that involved member state ministers from Kenya, Uganda, the Republic of South Sudan, and Republic of the Sudan, Ethiopia, Federal Republic of Somalia, Djibouti, Republic of Rwanda, and the Republic of Burundi together working with other high-level government representatives to harmonize labour migration policies in the region.

## 7.3 Supportive Mechanisms and Programs

In order to effectively implement the overseas employment proclamation, different supportive mechanisms are developed by MoLS and other partners. Such implementation support mechanisms include the migrants Data Management System, the training manuals for a pre-departure training, the competency standard and selection of dedicated TVETs for occupational training. In addition, the existence of a board that has a direct stake on migration makes the overall migration process efficient and effective. The presence of strong support from international institutions like ILO, IOM, and GIZ is another support mechanism on the ground.

## 8 Conclusions

Based on the data obtained from the desk review and interview, the following conclusions are made

- The horticulture sector has shown significant growth in the past and it will grow substantially in the future. The sector is also the priority investment area for the Government of The Netherlands
- Horticulture sector is an attractive sector due to different enabling conditions such as conducive soil type and climate, conducive policy, availability of demand for the products both in the local and international market, location advantage to export to different parts of the world, efficient air transport/ Ethiopian Airlines, access to labour and growing infrastructure development. On the other hand the sector is facing challenges such as shortage of foreign currency, bureaucracy, increased level of corruption, lack of skilled manpower, power interruptions, frequent change of policies and regulations. In general the opportunities available are by far outweigh the challenges in the sector.
- The labour market is not providing adequate qualified labour for companies working in the horticulture sector. However, one significant shift in the labour market is the availability of Ethiopian manpower experienced in the horticulture sector. 20 years ago, it was difficult to get horticulture graduates as it was not part of the education system in many universities and most of the flower farms hired other country nationals in mid and skilled jobs. Now all of the interviewed companies' core experts and leadership positions are occupied by Ethiopians.
- The most important skills and knowledge the labour market requires is a composition of both technical skills related to production, business management, marketing and supply chain management. The specific skills mentioned are related to production, quality management, postharvest handling, logistics management including cold chain management, marketing, digital literacy, crop protection management and soft skills such as leadership, communication, conflict management, time management skills, taking personal responsibility and problem solving skills. With regards to the new graduates joining the market, lack of practical and even theoretical knowledge and low passion to work on farms are mentioned. Lack of proper students' internship and apprenticeship and language barrier are mentioned as the core root cause of the gaps in the student's practical skill and theoretical understanding respectively.
- From the labour supply side, the current academic programs such as horticulture, agribusiness, and plant science are highly demanded programs by the private sector as far as the universities produce a competent manpower. There are enough universities producing these programs in BSc, MSc and PhD level. The private sector doesn't need a graduate in subspecialty programs such as for example, a graduate specialized in a specific fruit or vegetable production.

- The Ethiopian Education system is changed now to 6-2-4 system (primary school- middle school- secondary school) as of 2019/202. The students who complete grade 12 and acquired the minimum score for TVET College (post-Secondary education) or university join higher education. In addition, universities are differentiated as research, applied, comprehensive or specialized which guide the focus of intervention as per their missions. This has an impact on opening of new programs and the procedures for opening the new academic programs need to pass through a rigorous evaluation with the active involvement of many stakeholders and approval by the Ministry of Education.
- The collaboration between private companies, universities and research institutions is very low. There is a gap in understanding the win-win benefit of working together for both the private sector as well as academic institutions
- The establishment of career and incubations centres is increasing gradually and the most common services provided by both centres is training on different themes. However, promoting and developing agribusiness incubation centre need to be given a due priority.
- Ethiopia has a huge young population which is unemployed or underemployed and this contingent of the population includes quite a large section of degree graduates and TVET completers. In order to minimize this problem sending people for skilled or semi-skilled jobs through circular migration abroad is a commendable option, which is now being implemented by the government.
- Ethiopia has signed bilateral agreements with four countries and dealing with other countries to sign bilateral agreement is underway. A need assessment of the European labour market is being done by IOM. Generally, though there is an international recognition of the developmental benefit of circular migration, the readiness of the different governments to sign bilateral agreement at country level is not easy due to different reasons.
- Related to talent development program for skilled labour to the foreign market, Bahir Dar university maritime institute experience could be taken as best practice. Generally, quality of education is the issue that impeded the export of talent. The government has started taking measures to be put in place to increases the quality of education, its comparability, and acceptability of graduates in the labour market.



## 9 Recommendations

Based on the findings of the study, the following recommendations are made:

### 9.1 Better matching of labour market requirements and training offer

One of the gaps identified in this study is the mismatch of skill supply and demand in the horticulture sector. This is due to the low level of engagement of the private sector from program development to the actual learning processes. In order to solve this gap the following recommendations are forwarded.

- The horticulture sector is increasing its production and exporting to Europe. Therefore companies are competing with different international companies on the global market. To be competitive as well as meet the quality standard requirement of the global market, companies use latest technologies and constantly updated their knowledge and skills for better production. This requires the revision of existing academic programs or develop new programs to cope up with the dynamic changes in the market. Therefore, a review of existing curriculum or content and developing new programs through feedback collected from important stakeholders such as private sector, research centres and others is required.
- The existing teaching learning is more of lecturing that only gives a theoretical understanding, which is not complete to produce competent graduates. Therefore, the universities need to introduce learner-oriented practical learning methods such as games, question and answer, competition, problem solving exercises, discovery, simulation, role play, presentation, case study, project, brainstorming and others attached to the learning objective. In addition exposing students to real life experience through internship, apprenticeship, laboratories and demonstration sites through the allocation of adequate budget need to be in place. This allows for a transition from theory-based learning to competency based and practice-oriented learning. In addition, it is also recommended to design a system to invite private companies as guest lecturers to share their experiences with students.
- For meeting the international labour market, strong academic programs that can meet the international labour market need is important. One of the problems many skilled labour migrants faced is the lack of skill recognition and accreditation of their field of study acquired in their home country. Due to this, migrant workers have to study or get training again in universities in the host country, which is really expensive, time consuming, as well as wastage of resources for the migrant labour. In order to minimize this, developing a program with international standard through a joint education program between the host and home countries is one option. In addition, the government should work in skill recognition of the migrants in their destination countries. However, skill recognition and accreditation require conformance to the standard of the labour market which requires working hard to

bring this acceptable quality of education programs. To ensure quality, the following specific measures at higher level are important:

- Scale up the international accreditation that is being started with technology and science universities for undergraduate programs with the Accreditation Board of Engineering and Technology. Maritime of Bahir Dar University has also independent bodies for quality certification and accreditation
- Education and Training Authority needs to ensure the overall quality of education to be accepted even by African Standard. The authority is accountable to MoE and should be independent to better ensure the quality of the public universities programs as its recommendations and conclusions could be influenced by the Ministry of which all the public universities are accountable for.
- The English Language competency of the Ethiopian graduates need to be improved to get employment in most part of the world. Serious measure to improve the overall English competency in the Country need to be put in place.
- The Government could also prepare some provision (in terms of loans) for those people who are seeking employment abroad requiring passing of international English tests (TOEFL, IELTS). Students should pay 300\$ to sit for such exams which is expensive.
- The training to be designed for the 3 months period in The Netherlands should focus on the private company's skill requirement in Ethiopia. This will enable the private companies to hire the trained students when they get back to Ethiopia. In addition, the type of work to be done to meet the skill gap requirement should be communicated ahead for those going to The Netherlands.
- In order to gain the best experience out of the 3 months training, it is recommended for students to go at the peak production season. On the other hand, the academic calendar from the university is a challenge and the possible time students can go abroad is in summer break starting from July to September. This season in The Netherlands is a holiday season when production become passive. Therefore, in order to maximize the learning, it is recommended to send students at productive season, while students shall wait their junior batches to graduate. Meanwhile, students depending on their area of interest will get either the career development including job matching or incubation support after return in a fulltime basis.
- Capacitating the Hawassa University Incubation Centre to provide quality incubation support is required. The training which is currently given to the incubates needs to be focused on shaping the ideas into a reality. The training that is provided for incubates is the 2 days youth entrepreneurship training designed by EDI-Ethiopia. This training is given with the purpose of inspiring students to choose entrepreneurship as their career option. Therefore, these training has less

relevance for those students having a business idea and who have already decided to be an entrepreneur. Therefore, training, business development and technical coaching need to be redesigned to have a great result of turning incubates' ideas in a venture. The centre also requires resources to furnish the incubation centre and provide intensive incubation support.

## 9.2 Potential target groups for the talent development program

### 9.2.1 Higher Education students

The academic programs given at the College of Agriculture of Hawassa University that are closely related to the project/horticulture sector are Agribusiness and Value Chain Management, Plant Science and Horticultural Science. At the beginning it was agreed by the college to focus on students in agribusiness. However, in later discussions, the college suggested to take students from more than one academic programs. As departments mentioned above are related to horticulture sector as well as the demand for the private sector taking students from the 3 programs is better. This also ensure diversity.

### 9.2.2 Professionals from private sector

All of the companies interviewed are willing to participate in the training to be given in The Netherlands as far as it adds value to fill the skill and knowledge gap they have. Most of the gap mentioned by the companies include productions skill (from land preparation up to packaging), total quality management, crop protection management, knowledge of generally accepted agricultural practices including climate smart agriculture and business skills like leadership, communication, logistics, conflict management and etc. Therefore, private company employees or leaders working in managing production, marketing and logistics are the recommended candidates for the training.

## 9.3 Composition of the multi-stakeholder platform

The national multi-stakeholder platform is recommended to have Hawassa University as platform chair while other possible members include SNV, ILO, IOM, EPHEA, GIZ, Ministry of Education, Ministry of Labour and Skills, Ministry of Agriculture and private companies working in horticulture sector.

## 9.4 Recommendations on the legal pathways for circular migration (eventual)

Based on the similar projects the following are the lesson learned:

- The government to government agreement for skilled manpower circular migration between Ethiopia and other developed nations shall not happen in the near future as it is politically sensitive matter. Therefore, the Ethiopian Government should capitalize on the current opened opportunity of signing

bilateral labour agreements with business entities. The government should work on producing globally competent manpower by designing and executing internationally standardized education programs. This requires investment in capacity building of all stakeholders involved in the talent development and labour migration.

- Currently Ethiopia is working relatively better to export mostly domestic workers to Gulf countries. There must be an advance preparation for semi-skilled and skilled labours need. Measures are needed to penetrate to the labour market in Europe and other developing countries for its skill or semi skill workers.
- From the experiences, there is a risk of desertion that needs proactive management of such risk. The following are recommended to manage this risk:
  - Setting of a strong selection criteria beyond academic performance, language proficiency and others including behavioural aspect. It is good to have a quota for ensuring gender diversity without compromising quality.
  - Provide a very strong pre-departure orientation about the importance of getting back and the risk of not returning like risk of being a refugee.
  - Withhold part of their allowances and give them when they get back .
  - Requesting a collateral.
  - Provide good opportunities to return like an agreement of employment contract if possible, incubation support.
  - Strict monitoring and follow up of students while they are in The Netherlands. This could be done through assigning teachers.
  - Holding their passport and prepare them a local ID card to be used during their stay. This may be unethical action and need to be critically seen.
- There are operational level challenges faced by migrant Ethiopians related to getting cost effective and efficient services. For example, private recruitment companies for jobs abroad need to be encouraged to open their offices in the regions, as things stand now most of them are concentrated in Addis Ababa.

## Bibliography

Agroberichten Buitenland, Ministerie van Landbouw, Natuur, en Voedselkwaliteit (2022) Focus of the Ethiopian Government on horticulture (2022) Nieuwsbericht |

Agroberichten Buitenland, Ministerie van Landbouw, Natuur, en Voedselkwaliteit (2023) Potentials and Opportunities of Ethiopian Horticulture Sector (2023) | Nieuwsbericht |

Asnake K. and Fana G. 2021. Youth on the Move: Views from Below on Ethiopian International Migration. London: Hurst and Company

Belew, Derbew and Jeong Cheon Soon (2014) Fruit Production in Ethiopia; Kangwon National University Press, Republic of Korea

Castillejo, C. 2017. The EU Migration Partnership Framework Time for a rethink? Bonn: Deutsches Institut für Entwicklungspolitik

Danish Trade Union Development Agency, Ethiopia Labour Market Profile 2020

Embassy of Ethiopia Brussels (2017) The blooming horticulture industry of Ethiopia: <https://ethiopianembassy.be/the-blooming-horticulture-industry-of-ethiopia/> (Retrieved on Aug 31, 2023)

European Commission (2007): Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions on circular migration and mobility partnerships between the European Union and third countries. COM(2007) 248 final. Brussels. Available from: <http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex:52007DC0248>

European Migration Network (2011): Temporary and Circular Migration: empirical evidence, current policy practice and future options in EU Member States. Publications Office of the European Union: Luxembourg. Available from: [http://ec.europa.eu/dgs/home-affairs/what-we-do/networks/european\\_migration\\_network/reports/docs/emn-studies/circular\\_migration/0a\\_emn\\_synthesis\\_report\\_temporary\\_circular\\_migration\\_final\\_sept\\_2011\\_en.pdf](http://ec.europa.eu/dgs/home-affairs/what-we-do/networks/european_migration_network/reports/docs/emn-studies/circular_migration/0a_emn_synthesis_report_temporary_circular_migration_final_sept_2011_en.pdf)

Federal Democratic Republic of Ethiopia (2020). Digital Ethiopia 2025: A Digital Strategy for Ethiopia Inclusive Prosperity. <https://tapethiopia.com/wp-content/uploads/Ethiopia-Digital-Strategy-2020.pdf>

Federal Democratic Republic of Ethiopia. Plan of Action for Job Creation 2020-2025, Jobs Creation Commission Ethiopia. <https://jobscommission.gov.et/wp-content/uploads/2019/11/National-Plan-for-Job-Creation-Brief.pdf>

Federal Negarit Gazette (2019) Higher Education Proclamation (2019): [https://ethionab.org/wp-content/uploads/2022/09/1152\\_2019\\_HIGHER\\_EDUCATION\\_PROCLAMATION.pdf](https://ethionab.org/wp-content/uploads/2022/09/1152_2019_HIGHER_EDUCATION_PROCLAMATION.pdf) (Retrieved on Sept 8, 2023)

Federal Negarit Gazette (2021) Definition of Powers and Duties of the Executive Organs Proclamation: Proclamation No. 1263/2021 [https://www.lawethiopia.com/images/federal\\_proclamation/proclamations\\_by\\_number/Definition%20of%20Powers%20and%20Duties%20of%20the%20Executive%20Organs%20Proclamation.pdf](https://www.lawethiopia.com/images/federal_proclamation/proclamations_by_number/Definition%20of%20Powers%20and%20Duties%20of%20the%20Executive%20Organs%20Proclamation.pdf) (Retrieved on Aug 31, 2023#)

Floriculture International (2022) FROM GRASS TO GRACE: How EHPEA put Ethiopia's floriculture on the world map (2022), An interview given to by Mr Tewodros Zewdie, president of the Ethiopian Horticulture Producers and Exporters Association (EHPEA) in Nov 2022 - <https://aiph.org/floraculture/news/from-grass-to-grace-how-ehpea-put-ethiopias-floriculture-on-the-world-map/> (Retrieved on Sept 13, 2023)

Giuliani, D. and Ajadi, S. (2019). 618 active tech hubs: The backbone of Africa's tech ecosystem. Ecosystem Accelerator, 10 July 2019, Briter Bridge & GSMA. <https://www.gsma.com/mobilefordevelopment/blog/618-active-tech-hubs-the-backbone-of-africas-tech-ecosystem/>

Global Forum on Migration and Development (2008). Workshop on Creating Development Benefits through Circular Migration, Mauritius, September 2008. Available from: [https://www.gfmd.org/files/documents/gfmd\\_manila08\\_contribution\\_to\\_rt2-1\\_workshop\\_mauritius\\_2008\\_en.pdf](https://www.gfmd.org/files/documents/gfmd_manila08_contribution_to_rt2-1_workshop_mauritius_2008_en.pdf)

Guday E. and Kiya G. 2013. 'The Conception of Gender in Migration to the Middle East: An Anthropological Study of Gendered Patterns of Migration in North Wollo Zone of Amhara Region, Ethiopia'. In: EJDR, Vol 35(1): PP 107-146.

HERQA (2021) Guidelines for the Accreditation of Cross-Border Higher Education in Ethiopia Number 579-2021: <https://chilot.blog/2021/06/13/guidelines-for-the-accreditation-of-cross-border-higher-education-in-ethiopia-number-579-2021/> Retrieved on Sept 13, 2023)

Higher Education and Training Accreditation Strategy (2021)

Hussen, Anwar Ahmed (2022). The Impact of Course Delivery Approach on Student's Academic Achievement at Haramaya University, Asian Journal of University Education (AJUE) Volume 18, Number 2: <https://files.eric.ed.gov/fulltext/EJ1347557.pdf> (Retrieved on Sep 13, 2023)

ILO (2017), a Market Systems Analysis of the Fruit and Vegetables Sector Sidama & Amhara, Ethiopia

ILO (2020), A synthesis: Operational guidelines and their application to Ethiopia's Employment and Youth Employability Services (YES) centres in the Amhara Region, Ethiopia

ILO (2020): Labour market assessment Market trends and opportunities in Ethiopia and the Gulf

ILO (2022), STED Strategic Skills Recommendations for the Agro-Processing Industry in Ethiopia - ISBN 9789220380048

IOM 2021, Annual report Ethiopia

IOM, 2020: COVID-19 and the transformation of migration and mobility globally, COVID-19 and rethinking the need for legal pathways to mobility

Kiya G. 2021. Contextual Borders: A Moving Zone of Religion along the Ethiopia-Sudan Border of Metema Yohannes. PhD Thesis

MoE (2018) Ethiopian Education Roadmap (2018-2030): [https://planipolis.iiep.unesco.org/sites/default/files/ressources/ethiopia\\_education\\_development\\_roadmap\\_2018-2030.pdf](https://planipolis.iiep.unesco.org/sites/default/files/ressources/ethiopia_education_development_roadmap_2018-2030.pdf) (Retrieved on June 13, 2023)

MoE (2023) Education and Training Policy: <file:///C:/Users/p70085128/Downloads/Education%20and%20Training%20Policy-Yekatit-2015%20Final.pdf> (Retrieved Sept 8, 2023, Amharic)

Overseas Employment Proclamation Amendment (No. 1246/2021) <https://www.lawethiopia.com>

Overview of the Horticulture Sector- Newsletter of EPHEA: <https://ehpea.org/overview-of-the-sectors-growth/> (Retrieved on Aug 31, 2023)

UNHCR. 2022. UNHCR Factsheet-Ethiopia (February)

## ANNEXES

### Annex A. Interviewed companies

Company name	Contact person	Address	No. Employees	Main products	Potential engagement in MOBILISE	Comments
Joytech Fresh	Mr. Bisrat Haileselasie	Bishoftu 0936010413	1358 85% women	Vegetables	<ul style="list-style-type: none"> <li>• Could participant in designing curriculum</li> <li>• Could hire graduates</li> <li>• take part in the 3 months training</li> <li>• Host Internship</li> <li>• Guest lecturer and research</li> <li>• Stakeholder platform member</li> </ul>	Export to Europe, Japan, Singapore, Russia and the Middle East
Minaye Flower	Mr. Eyob	0911505444	900	Flower	<ul style="list-style-type: none"> <li>• Could participant in designing curriculum</li> <li>• Could hire graduates</li> <li>• take part in the 3 months training</li> <li>• Host Internship</li> <li>• Stakeholder platform member</li> </ul>	Export
Roshinara	Mr. Elias	0911502137	450 85% women	Vegetables, fruits & flower	<ul style="list-style-type: none"> <li>• Could hire graduates</li> <li>• take part in the 3 months training</li> <li>• Host Internship</li> <li>• Platform participant</li> </ul>	Export and local market
Jituu	Mr. Kedir	0911502152	200	Vegetables and fruits	<ul style="list-style-type: none"> <li>• take part in the 3 months training</li> <li>• Host Internship</li> <li>• take part in the 3 months training</li> </ul>	Mainly local market with little export



Mulualem Farm	Mr. Mulualem	09115086111	71	Vegetables and fruits	<ul style="list-style-type: none"> <li>• Willing to hire graduates</li> <li>• Host internship</li> <li>• Take part in 3 months training</li> <li>• Platform member</li> </ul>	
Meki-Batu Cooperative	Mr. Fikru	0924424180	130	Vegetables and fruits	<ul style="list-style-type: none"> <li>• Platform members</li> <li>• Host internship</li> </ul>	Local market
Gidabo integerated farm	Mr. Kibrom	0912031170	88	Fruits	<ul style="list-style-type: none"> <li>• Can participate in training and Curriculum development</li> <li>• Platform member</li> <li>• Host internship, Hire graduates</li> </ul>	
Jara agro industry			120	Fruit & vegetable	<ul style="list-style-type: none"> <li>• Can participate in training and Curriculum development</li> <li>• Platform member</li> <li>• Host internship, Hire graduates</li> </ul>	

## Annex B. Other relevant stakeholders for Migration

<b>Organization name</b>	<b>Organization type</b>	<b>Information source</b>	<b>Area of influence / Services description</b>	<b>Interest for the project</b>	<b>Recommended engagement*</b>
IOM	Int. Org	Report	Technical and financial support on circular migration	Technical support	Consult Engage in platform
SNV	Int. Org	Report	Capacity building of university, TVET and private sector in horticulture	Capacity building: technical support in horticulture	Consult Engage in platform
ILO	Int. Org	Report	Skill development Decent employment creation: employability and incubators	Capacity building in skill development	Consult Engage in platform
GIZ	Int. Org	Report	Support Skill development Decent employment creation: employability and incubators	Capacity building in entrepreneurship & career development	Consult
EU	Int. Org	Report	Policy development and bilateral agreement Financial support	Technical and financial support on migration and talent development	Consult Engage in platform
EKN	Int org				Consult Engage in platform