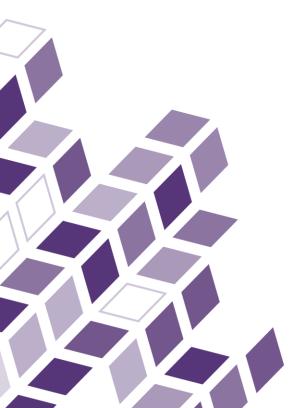
NOKUTs utredninger og analyser

Report on recognition of higher education in Eritrea and Ethiopia

A study trip to Eritrea and Ethiopia in October 2012 January 2013





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1 Preface

The aim of the Norwegian Agency for Quality Assurance in Education (NOKUT) with this report on higher education in Eritrea and Ethiopia is to contribute to increased knowledge about conditions in higher education in the two countries. We hope it can provide useful knowledge and ideas for institutions and others dealing with recognition of degrees, from African countries.

Over the last three years, there has been a steady increase in applications from both Eritrea and Ethiopia. The numbers of Eritrean applications have risen by over 10% per year up to 116 in 2012, while Ethiopian applications have risen to numbers 72. These numbers make Eritrea and Ethiopia the number one and number two country with regards to applicants from Africa. At the same time, NOKUT has been aware of reforms in higher education sector of both countries without a consistent idea of the scope of change. Conflicting information from applicants themselves as well as both national and international sources meant NOKUT was faced with the risk of denying recognition to applicants who should have had their education approved. Finding this to be unacceptable, NOKUT decided to undertake a study trip to Eritrea and Ethiopia in the fall of 2012.

The delegation consisted of two members from the Norwegian Agency for Quality Assurance in Education and two members from the Norwegian Universities and Colleges Admission Service (NUCAS).

From NOKUT:

- Erik Audensen, Adviser
- Anne-Kari Gulliksen, Adviser

From NUCAS:

- Kristin Tambs, Head of Section
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NOKUT would like to thank everyone who contributed to the outcome of this trip.

Oslo, 25. January 2013

TyiMolar

Terje Mørland Director General

Introduction

The following pages contain a report from a study trip to Eritrea and Ethiopia in October 2012 by representatives from the Norwegian Agency for Quality Assurance in Education (NOKUT) and the Norwegian Universities and Colleges Admission Service (NUCAS). The purpose of the trip was to gather information for the work we do in our respective offices, but we hope the report can be helpful to others who work with foreign education. The report is written by NOKUT, and therefore our main focus has been the higher education system in Eritrea and Ethiopia. The system of secondary education, admission to higher education and technical/vocational education are areas which are also included in the report, however more briefly.

There have been major reforms taking place in the higher education systems in both countries. We have experienced an increasing need for more updated information on the reforms themselves, and the effects they have had on higher education.

For Eritrea it is the number of institutions that have increased.

For Ethiopia, the diploma programmes have ceased to be a part of higher education, while the normative length of degree studies has changed. In addition, there has been a change at secondary school level which has had important implications for the higher education system.

These findings will lead to changes in NOKUT's evaluations when it comes to recognition of higher education from Eritrea and Ethiopia.

During our visit in October 2012, we had meetings with the Norwegian embassies in Asmara and Addis Ababa, the national offices dealing with accreditation of higher education, the Ministry of Higher Education (only in Ethiopia), and the admission offices for higher education. In addition, we had the opportunity to visit several higher education institutions in both countries. In Asmara, we visited two of the post-reform new higher education institutions, the College of Health Sciences and the Eritrean Institute of Technology. In Addis Ababa, we visited the University of Addis Ababa, as well as the three private institutions, Unity University, St. Mary's College and Admas University College.

Even though we only spent a few days in each country, the short time we had at our disposal was spent very efficiently. We were able to meet with a number of key actors, institutions and offices in the higher education sector. The trip has been very educational and our conclusions are presented in this report. We would like to thank the Royal Norwegian Embassies in Asmara and Addis Ababa, the National Board of Higher Education (NBHE) in Eritrea and the Higher Education Quality Agency (HERQA) in Ethiopia in assisting us with scheduling meetings and solving the practical issues during our visit. We are most grateful.

Summary

Eritrea

Eritrea has seen a change in its higher education system in the period 2004–2010. However, this reform is not a change in the system itself, but a change in the number of institutions offering higher education in the country. The system of diploma-, bachelor- (and master-) programmes has remained more or less the same, except for the fact that the number of programs has increased.

The University of Asmara has been the only institution of higher education in the whole country. All issues related to higher education have been concentrated around the university. To be able to offer higher education to a larger number of students, the government decided to close the University of Asmara, with no new intake of students after 2003. Then they upgraded seven of the underlying colleges of the university to independent institutions of higher education. Some of the new colleges have also been moved to other parts of the country, and one could say that there has been a decentralisation of higher education in Eritrea. The result is that Eritrea today has seven institutions offering higher education, and the number of students attending programs of higher education has risen from around 5000 students at the University of Asmara in 2004 to around 17 000 students attending programs at the new colleges of higher education today.

The University of Asmara's main programme were the diploma programme and the bachelor degree; and was only able to introduce the master degree programme in 2004 just before closing. Today we see that most of the new colleges of higher education have already introduced many new master degree programmes or are planning to introduce master degree programmes in the near future.

Ethiopia

The reforms in neighbouring Ethiopia have been far more wide-reaching with changes in both secondary and higher education.

Since the late 1990s, the number of higher education institutions has risen dramatically; as has the number of students. The government has opened up for private higher education institutions, and established more than 15 new public universities, bringing the total number of public institutions to just over 30. The private higher education sector has grown exponentially in number of institutions, but the majority of students still attend the public universities.

Secondary education has changed with the introduction of the "*Preparatory Year*", which in practice is an amalgamation between the 12th grade and the freshman year of higher education.

The diploma programmes ceased to be higher education with the last batch of students graduating in 2006/2007. Technical Vocational Education and Training (TVET) has today both taken on, and expanded, the role the older diplomas had in the Ethiopian educational system.

The reforms in Ethiopia have moved back and forth on the question of normative length of degree studies, going from 4 to 3 and then back to 4 years again for a regular bachelors. Nor are the reform processes over. The government has recently started a drive for all higher education institutions to streamline subjects into a national plan favouring technical subjects.

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2 Eritrea

The State of Eritrea is an isolated country on the Horn of Africa, with approximately 5 million inhabitants. This small African country was an Italian colony from 1889 to 1945, and since 1952 a part of Ethiopia. After almost 30 years of war, Eritrea became independent in 1993. Since independence it has been run by one party, the People's Front for Democracy and Justice (PFDJ), with Isaias Aferwerki as president of the country. The system of education is fully controlled by the state, and programmes of higher education are overall planned and developed to serve the needs of the country.

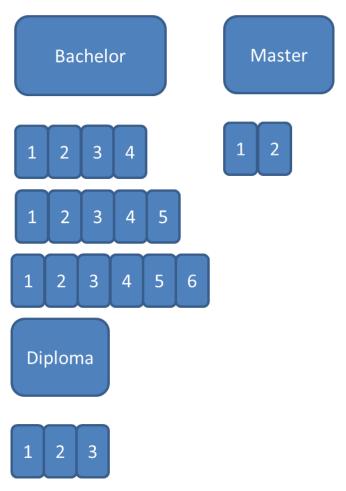
Until 2004 the University of Asmara was the only higher education institution in the country. Then the government decided that higher education should be available to more people, and a reform was implemented during the years 2004-2010. It is important to start by saying that this is not a reform changing the system of higher education itself, but a reform that changed the number of institutions from one to seven institutions.

As a result of this reform, the number of students in higher education institutions has increased from around 5 000 students attending classes at the University of Asmara in 2004 to approximately 17 000 students in 2012 attending higher education programs at the new colleges.

1. Before 2004

The University of Asmara was established by Italian missionaries in 1958 and has been the only higher education institution in Eritrea. The University had its last intake of students in 2003, and the last batch of students graduated from the university in 2007. The University offered 2-3 year diplomas and 4–5 year bachelor degrees in most fields. The University also introduced the master degree program in 2004 for a few students already enrolled at the university.

The system in Eritrea with 2-3 year diploma programmes, 4-5 year bachelor degrees and the 2-year master degrees is the same both before and after the reform, with the exception of a 6-year program in medicine that has been introduced after the reform:



2. Reform

The government decided to close the University of Asmara, with no new intake of students after 2003. The students that were already studying at the university were allowed to finish their degrees. The government then established seven new colleges to take its place. These new colleges were already functioning as parts of the University of Asmara, but with the reform they became independent institutions of higher education. This reform took place in the period 2004–2010. The new colleges were expected to offer higher education to a larger number of students than the University of Asmara had been able to admit, and they were therefore moved to different parts of the country, such as the coastal town of Massawa and Adi Keih in the south. The main reason for this change of location, according to the government, was to make higher education more accessible to students outside of the capital. In addition, it was necessary to build larger teaching facilities which corresponded to a greater number of students, as well as to find housing for these students, as the lack of sufficient housing was considered a general problem in Asmara.

The seven new colleges of higher education as of October 2012:

- 1) Eritrea Institute of Technology, Mai Nefhi
- 2) Hamelmallo Agricultural College, Hamelmallo
- 3) College of Health Sciences, Asmara
- 4) Orotta School of Medicine and Dental Medicine, Asmara
- 5) College of Marine Sciences & Technology, Massawa
- 6) College of Business and Economics, Halhale
- 7) College of Arts and Social Sciences, Adi Keih

Each college covers a specific subject area. For example engineering is only offered at Eritrean Institute of Technology and medicine is only offered at Orotta School of Medicine and Dental Medicine.

The colleges offer 2–3 year diploma programs, 4–5 (6) year bachelor degree programmes, and some are offering or planning to offer different programmes on a master degree level. The master degree is a 2-year program. As the master programme was only introduced in 2004, just before the closing of the University of Asmara, it is still a fairly new degree in Eritrea. For this reason, just a few of the colleges have experience with the master degree and it takes time to develop these new degree programmes. For more information on the master degrees, please see page seven.

According to the information we got during our meetings with the National Board of Higher Education (hereafter referred to as NBHE), there are plans to phase out the diploma programmes and establish junior colleges for diploma programmes only. However, NBHE did not give any further details as to when and how this is to be implemented. As per today (academic year 2012–2013), all seven colleges still offer diploma programmes, and there seem to be more students attending the diploma programmes than the degree programmes. According to available articles and other information, this is the trend for all colleges. Out of the 122 graduates from the College of Marine Sciences & Technology in 2011-2012, 72 graduates were on the diploma programme and only 50 graduates were on the bachelor degree program.

One should note that the freshman year of the diploma programme and the bachelor degree programme are the same.

The Eritrean Institute of Technology (EIT) is the largest of the seven higher education institutions today and had its first intake of students as an independent institution as early as 2004. The following information is for the academic year 2011/2012.

EIT is divided into three colleges:

The College of Education

The college offers 4-year bachelor degree programs in the following disciplines:

- Biology Education
- Chemistry Education
- Educational Administration
- Mathematical Education

• Physics Education

2-year diploma programs

- Educational Administration
- Mathematical Education
- English Language Teaching
- English Language Training
- Physical Education
- Science Education
- Social Science Education

College of Engineering

Bachelor degree programs offered at the College of Engineering:

- Aeronautical Engineering
- Chemical Engineering
- Civil Engineering
- Computer Engineering
- Electrical Engineering
- Mechanical Engineering
- Mining Engineering
- Process Engineering.

These are all 5-year programs. There are ten diploma programs within the same areas being offered at the College, and these are all 3-year programs.

The College of Science

Bachelor degree programs offered at the College of Science:

- Biology
- Chemistry
- Mathematics
- Physics
- Computer Science
- Geology
- Library Information Science

There are just two diploma programs in this college. These are in Computer Application and Archives & Record Management. The bachelor degree programs are 4-year programs, and the diplomas programs are 2-3 years.

The College of Science also has four different master degree programs in Biology, Chemistry, Mathematics and Physics. These are 2-year programs.

The College of Health Sciences is one of the larger institutions. It has been functioning as an independent higher education institution since 2008, and has the following four underlying schools:

- School of Allied Health Professions
- School of Nursing
- School of Pharmacy
- School of Public Health

The College of Health Science offers diploma programmes, bachelor degree programmes and a few master degree programmes.

The School of Nursing used to be a vocational institution called the School of Nursing and Health Technology. The school was administered by the Ministry of Health and offered diploma programs and certificates. The diploma programmes offered at the school were vocational programmes and not a part of the higher education system. However, in 2008 the school was incorporated into the College of Health Science. The diploma programmes were upgraded by the College of Health Science and considered higher education. If the Final Diploma and the transcript clearly indicate College of Health Science as "teaching institution" it is higher education. If it only says School of Nursing and Health Technology, then is it probably an older diploma and it should not be regarded as higher education. Please see page seven for more information on the vocational diploma programme and a diploma programme considered as higher education. After 2008 the college does not offer certificates, as certificates are not part of the higher education system.

The School of Pharmacy offers a 5-year program (Pharmacist) and a 2-year diploma program in the same field. There are also plans to offer a Higher Diploma degree in four different areas.

3. The system of education

Until 2006, the higher education sector was managed directly from the Ministry of Education. To coordinate the reform in higher education after the closing of the University of Asmara, the Provisional Committee for the Coordination of Higher Education was established. The committee worked to facilitate and coordinate the activities of the new higher education institutions. After two years (2006–2008) it ended its work and was in 2008 replaced by the NBHE. The last president of the former University of Asmara, Dr. Tadesse Mehari, is today the Executive Director of NBHE. Its mission is to promote higher education, oversee the functions of the governing bodies of these institutions, and to manage accreditation of new programs and new institutions. It has three sub-offices to execute and manage the main objectives of the board. These sub-offices are the Bureau of Standards and Evaluation, the Bureau of Higher Education Administration and the Bureau of Administration and Finance.

In 2009 the Bureau of Standards and Evaluation developed a set of guidelines for accreditation of higher education institutions. These guidelines are planned to serve as a basis for quality assurance in higher education institutions in Eritrea. The guidelines are to be used for monitoring and evaluating the quality at both public and private institutions. Accreditation can be given at both institutional level and programme level.

As of October 2012, there are no private institutions accredited as institutions of higher education in Eritrea, but we were informed that a college called SMAP Institute of Education, Training and

Consultancy has applied to NBHE for accreditation. SMAP offers certificate- and diploma programmes.

The NBHE strives to promote the new higher education institutions as centers of excellence according to their guidelines. However, in our meetings they expressed some concerns about the quality of education, as they now have less "control" of the education being provided, as higher education in Eritrea has been decentralised and is not only offered in Asmara. With more students in higher education and programs being offered in different parts of the country, it is regarded as more difficult to follow up the quality of teaching and the curriculum, according to NBHE. The institutions we visited, the Eritrean Institute of Technology and the College of Health Science, were of the opinion that the quality of education was being maintained, even though they were facing challenges with the increased number of students. The lack of teaching staff was mentioned as the main problem. In our meeting we were informed that the government has solved this problem by "importing" teachers, mainly from India. In 2012, 35-50 % of the teaching staff came from abroad. This is supposed to be a temporary solution, as the government has plans in progress to educate national staff, both locally and on different exchange programs in India, China, the US and Germany, to name a few countries. Nevertheless, this will take time, due to the political situation in the country, many of the nationals joining these educational programs abroad never return. Eritrea currently has a diaspora of about 1.5 million.

The students in higher education pay no tuition fee. All expenses for housing and food are covered by the government, and most students live in dorms on the university campus. Books can be borrowed at the university library.

4. Programmes and degrees

2.4.1 Diplomas

A diploma program offered by any higher education institution in Eritrea is to be considered as higher education. These diploma programmes are 2- and 3-year programs, depending on the subject. Most diploma programmes offered by higher education institutions can be incorporated in a bachelor degree when the total amount of credits for the subjects corresponds. Most commonly this is done within the same subject area. For holders of a diploma education, it takes $2-2\frac{1}{2}$ years to complete an ordinary 4-year bachelor's degree.

2.4.2 Bachelor degrees

Most bachelor degree programmes have a normative length of 4-years. The exceptions are few, but one should mention engineering, law and pharmacy, which are all 5-year programmes. Also, the 6-year bachelor of medicine is important to include. Until recently, general medicine was not offered in Eritrea at all. All doctors had to be educated abroad. However, the Orotta School of Medicine and Dental Medicine has been able to offer a 6-year bachelor of medicine the last couple of years.

A 4-year Bachelor degree is usually 130 – 150 credits in total.

Both diplomas and bachelor degrees are offered as extension programmes. These are usually part-time programmes taken as evening classes. The normative length of a 4-year bachelor degree is seven years on an extension programme.

2.4.3 Master degrees

The master degree in Eritrea is a 2-year programme. The first year mostly consists of classroom courses, and the second year is almost fully dedicated to research related work and the writing of a thesis. As the master degree level was introduced as late as 2004, in the subjects where this level is offered, only a very small number of students have graduated. When the issue was discussed during our visit to the Eritrean Institute of Technology in Mai Nefhi, its representatives mentioned 3-4 students enrolled in each programme.

Hamelmallo Agricultural College planned to introduce four master degree programmes in 2012. In the first year there will be 5-6 students in this programme. The College of Marine Science and Technology will start offering master degree programmes in 2013.

As part of the country's plan to educate more students, there are plans in place for a so-called "fast-track master degree programme". This means that master students of different subjects follow the same classes in the first year, and then specialise and write a thesis in their specific subjects during the second year. This programme was to be offered from 2011 at the Eritrean Institute of Technology, but these plans have, according to the NBHE, been delayed.

There are also a couple of colleges which offer distance learning on the master degree level, where the students live at the college in Eritrea, but have distance education "classes" at the Indian institution via Internet.

5. Vocational institutions

During our visit to Eritrea, we did not visit any of the institutions offering vocational training. However, we were informed by the NBHE that there are a number of schools offering teacher training (for primary school teachers), nursing, accounting and some administrative subjects. All these schools are administered by the appropriate ministry, such as the Ministry of Health or Ministry of Education.

Schools offering vocational training have 1-2 year certificate- and 2-year diploma programmes. The certificate is never considered higher education, as mentioned earlier. Neither is a diploma programme offered at these schools. These diplomas are vocational programmes for people planning to be employed by the ministries. The programmes are also offered as re-training of staff within the ministries. It can cause some confusion that the term "diploma programme" is used both for 2-year vocational programmes and 2-year higher education programmes. However the programmes that are considered higher education are only the ones provided by the higher education institutions.

6. Documentation

Transcript/Official Student Record, Temporary Diploma and Final Diploma

A graduate of the University of Asmara recieved a student copy of the Official Student Record when the program/degree was completed. In addition a Temporary Diploma was issued when the student had completed the National Service (for more information on the National Service, please see own section), which has to be completed in order for a student to graduate. Around 1-2 year after graduation, the student would receive a Final Diploma.

A former student of the University of Asmara can also get a copy of the student records at any time, according to the NBHE. It can be issued as many times as the student should wish without any cost, even if the student is applying to further studies or work from abroad. The NBHE manages the archives of the University of Asmara, and their offices are in the same facilities as the former University of Asmara.

The procedure today is the same for the new colleges as previously during the University of Asmara period. However, the new colleges have not yet by October 2012 issued any Final Diplomas. According to the NBHE, one should also be able to get a copy of the student records from the new colleges when needed.

2.6.1 Official Student Record

The transcript, or the Official Student Record as is the proper name, should include information about the student. It should include the name, date of birth, name of secondary school, the student number, the program/degree and all the courses taken with grades. The Official Student Record shows all courses the student has taken and if any courses have been retaken, this will be indicated. It will also include any courses from an earlier programme if a student for instance has taken a diploma programme and then continued to a degree programme, and been exempted from some courses. There is no picture on the document, but it should always be stamped and signed.

The date of birth can be written in the Ethiopian calendar system (EC) or in the Gregorian calendar system (GC). We were informed by the Norwegian Embassy in Asmara that Eritrea has had a central system for issuing personal numbers the last five years, and for this reason we will most likely see transcripts with more accurate dates of birth in the future. In transcripts from the University of Asmara, the date of birth was sometimes just indicated with the month and year. It was also quite common to write the wrong date, as the date was often not translated correctly between the two calendar systems. In our meeting with the Norwegian Embassy, it was mentioned that the date of birth is not very important for Eritreans, since many people do not know exactly when they are born.

The course codes on the Official Student Record show three numbers in front of each course name. These codes indicate the year, course and semester. This is the same structure used both on documents from the University of Asmara and after the reform at the new colleges.

It is possible to request a copy sent directly to your office for verification purposes. The copy will be sent in a sealed envelope and should have a stamp saying "not valid if handled by applicant"

2.6.2 Temporary Diploma

A Temporary Diploma is given to the student after graduation. However, in order to graduate the student has to finish the obligatory national service, as mentioned earlier. A Temporary Diploma has the same value as a Final Diploma when it comes to employment issues and further education. This is the same procedure for both the University of Asmara period and after the reform.

The new colleges have so far (October 2012) only issued Temporary Diplomas, and no Final Diplomas. According to the NHBE it has not yet been decided how the Final Diplomas for the new higher education institutions will look like. For this reason, all students graduating after the reform only have a Temporary Diploma.

2.6.3 Final Diploma

The Final Diploma from the University of Asmara was usually issued 1-2 years after graduation. The diploma was done on a very special paper, and a professional artist filled in the name of the graduate.

It was a thorough and unique process, which took time and the Final Diploma was difficult to falsify. However, Dr. Mehari from the NBHE informed us that it has not been possible to buy this special paper, which is used for the diplomas, in the last 3-4 years. This is supposedly why the last students graduating from the University of Asmara have not yet received their Final Diploma. The NBHE did not provide us with any information on when they would be able to issue these diplomas.

7. Basic education and National Service

2.7.1 Sawa and Secondary School Examinations

The School of Sawa opened in 2003 and is the only institution which offers the 12th year for all pupils in the whole country. It is mainly an academic institution and the pupils live on the campus. Pupils sit for the Eritrean Secondary Education Certificate Examination at the end of the 12th year. Graduates receive a certificate even if they have failed in one or more subjects as long as they have passed at least one subject. The certificate is called Eritrean Secondary Education Certificate, and it is issued by the Consultancy, Training & Testing Center. For verification purposes, we have attached examples of this certificate for each year, with the correct signatures, since the opening of the school (2004-2012).

There are approximately 17 000 secondary graduates every year. About 28 % (5 000) go on to higher education, and 3 000 move on to vocational education.

2.7.2 Admission to Higher Education

In order to be qualified for admission to higher education, pupils must pass five subjects in the Eritrean Secondary Education Certificate Examination. English and Mathematics are compulsory subjects. In addition, they must take at least three other subjects.

Each subject is marked on a grading scale from A to D. F is fail, and a student cannot have an "F" in order to graduate. The letter grades are converted to numerical grades.

Conversion from letter grades to numerical grades:

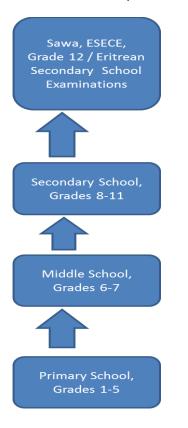
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A = 4
B = 3
C = 2
D = 1
F = 0
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In order to be admitted to higher education applicants must have a General Point Average (GPA) of minimum 2.0. The GPA is calculated from five subjects: Mathematics, English and three other subjects with the highest results. The best students are placed in the most prestigious programmes. Students with lower grades are placed in diploma programmes (HE) or certificate and diploma programmes (vocational).

2.7.3 The Eritrean School System

In accordance with the educational policy of 1991, there is a 7-year period of compulsory education between the ages of seven and thirteen (grades 1-7). Elementary education (grades 1-5) is taught in one of the local languages, while lower and upper secondary education and higher education are taught in English. Pupils study the first 11 years at their local school before they do the last year at Sawa.

It is also worth mentioning that there are two technical schools in the country, Asmara Technical School and Winna Technical School. Both have three year programs corresponding to the two last years of the regular secondary school. Pupils attending these schools must pass the Eritrean Secondary Education Certificate Examination (ESECE) and attend Sawa if they wish to enter higher education.



The Eritrean school system:

2.7.4 National service

National Service is compulsory for all Eritrean citizens. University graduates are not given their diplomas (Bachelor Degree Diploma) before they have completed their national service. The total duration of the national service (Hagerawi Agelglot) in Eritrea is 18 months; this is inclusive of six months military training plus one year of community service (in civilian/military capacity).

Most young people complete these 18 months right after graduating from Sawa. The main difference for university students is that they sometimes complete their six months of military training before they enter university and then complete the remaining 12 months of national service during or they have completed all academic courses at the university. However, the six months of military training can also be taken during university or after they have completed all academic courses. If a student does not complete the national service, he or she will only receive a transcript from the university with a note saying that the "The student has completed all the academic requirements, but could not graduate because he has failed to do his university service, which is one of the requirements for graduation" (example from a transcript from the University of Asmara).

8. References

The National Board of Higher Education: <u>www.nbhe.org.er</u>

Eritrean Institute of Technology: <u>www.eit.edu.er</u>

United Nations High Commissioner for Refugees: www.unhcr.org

Ministry of Information, Eritrea: www.shabait.com

US Department of State: www.state.gov/p/af/ci/er/

UK NARIC: www.naric.org.uk

The Norwegian Country of Origin Information Centre: www.landinfo.no

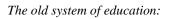
3 Ethiopia

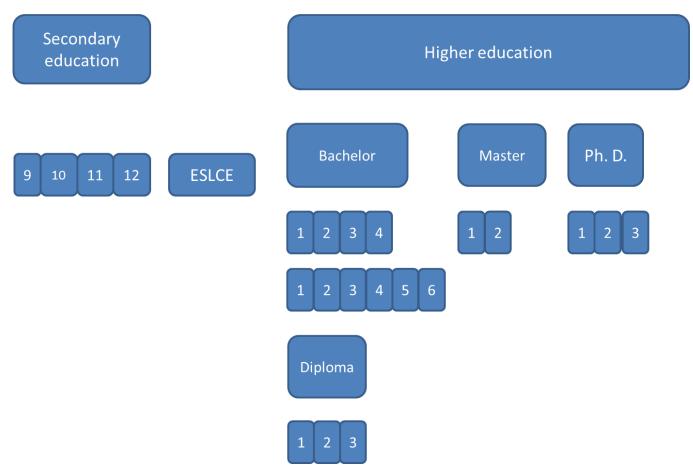
Ethiopia is a landlocked nation on the Horn of Africa. It is the only nation on the continent that can point to never having been a colony. Historical records for the various dynastic lines in the country date back to biblical times. The last dynasty - that of Emperor Haile Selassie - ended in a revolution in 1975. Over the next 15 years, the country was wracked by a civil war, while political unrest lasted until the first elections in 1995. The population is currently at around 84 million. Drought has been a recurring problem for the country, but the economy is still heavily reliant on agriculture. Ethiopia has also been one of the most rapidly growing economies in Africa with around 7% GDP growth.

The first Higher Educational Institution (HEI) in the country was established in 1950. Originally named the University College of Addis Ababa, the institution went under the name Haile Selassie University between 1962 and 1975, before being renamed Addis Ababa University in 1975.

Over the last 20 years, enrolment in higher education in the country has gone from being extremely low to something that is at least within the grasp of a larger fraction of the population. The World Bank put attendance in tertiary institutions for 2008 at a mere 2.4 % of the appropriate age cohort. After 2008, enrolment has increased by approximately 120% for both higher education institutions and vocational institutions.

1. Old system of education





3.1.1 Primary and secondary education

Until 2001, Ethiopia had a 12-year system consisting of primary education (grades 1-6) lasting six years, followed by junior secondary school (grades 7-8) lasting two years and then finally four years of senior secondary school (grades 9-12). This 12 year structure, leading to the Ethiopian School Leaving Certificate Examination (ESLCE), was then the basis of admission to higher education.

3.1.2 Higher education

Once you had passed the ESLCE, and by that securing admission to higher education, you chose whether you wanted to do a diploma course (two to three years) or start on a four-year bachelor. It was not uncommon for pupils who scored high on the ESLCE to take a diploma course for reasons of financial difficulty or family obligation, rather than to start directly on a bachelor degree. Crediting from the diploma to the bachelor degree was common as a number of the courses during the first (and sometimes, second) year was interchangeable. This gave those with diplomas a possibility of returning to universities at a later date.

While diploma programs were offered in almost all subjects given at the universities, they were also given in a number of subjects most would consider technical education, rather than higher education. In many ways, the diplomas were a mix of both higher and non-higher education, but by virtue of being offered at a university, all diplomas were considered higher education documents. The number

of diploma students far outnumbered those taking the bachelor degree, even though some moved on to the degree courses at a later date.

The undergraduate, bachelor degrees, were with few exceptions 4-year courses. As in many countries, a few degree courses – including engineering, medicine and pharmacy - were considered more important and therefore had longer normative period of studies, usually five or six years.

Master degrees were provided only at a few public universities, with the flagship institution of Addis Ababa University providing most of them. From 1987, the university also had 3-year Ph.D. degrees.

All higher education was public. The universities were open by parliamentary decree and fully funded by the government. The number of institutions was low, 13 in 1995, and the number of students admitted was therefore also extremely low when compared to the potential age group in the country. Only 35 000 students were enrolled in higher education in the academic year 1995/1996. There existed no private HEIs and at the public universities the diploma could only facilitate a small number of those eligible.

2. Reforms

The reforms of the educational system of Ethiopia took shape in the late 1990's. The reforms were wide ranging with the stated goal of "massifying" the educational system of Ethiopia as a way to reduce poverty and "develop the nation". While this report mainly deals with the changes in the higher educational sector and increase in both accredited HEIs and degrees, it should be noted that there are several offices related to quality in education which have been established. The National Pedagogical Resource Centre (NPRC) was established in 2000 as a joint effort by public and private HEIs to improve "teaching and learning processes in higher learning institutions in the country". The Higher Education Strategy Centre (HESC) was set up after the Higher Education Proclamation in 2003 to formulate strategies for higher education in Ethiopia.

With the first government approved private HEIs in 1997/1998, Ethiopia saw the first major steps in a massive growth in the numbers of both institutions and (subsequently) programs offered. At first, accreditation of private HEIs (both institutions and program curriculum) was done by a department of the Ministry of Education. From 2003, the Higher Education Relevance and Quality Agency (HERQA) was established to "*help ensure a high quality and relevant higher education system in the country*" while ensuring "*relevance and quality standards*" in the new system.

3.2.1 Secondary education

It is impossible to understand the reforms in higher education in the country without first speaking of the changes in the senior secondary educational system. Up until 2001, the system was a 12+-system consisting of primary education, followed by lower secondary education and then finally senior secondary education. This 12+(6+2+4) structure was then changed into a 10+-system with the first pupils graduating in 2006.

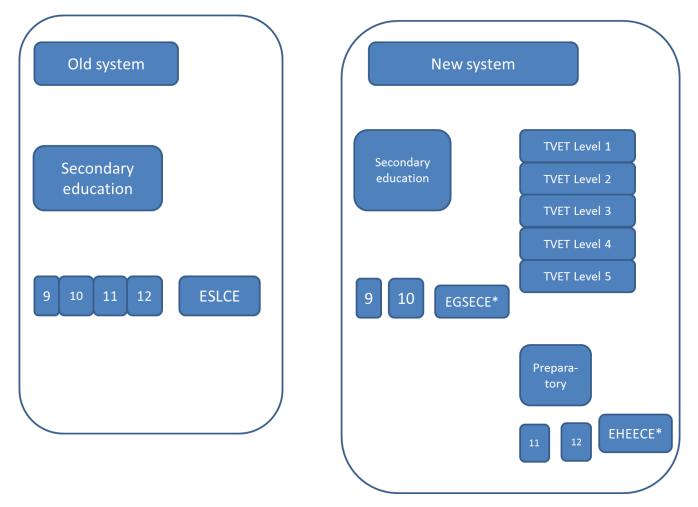


Illustration of the old and new system secondary education:

*The "CE" in EGSECE and EHEECE stand for Certificate Examination.

The new system from 2003 of non-tertiary education is in reality a 4 + 4 + 2 (+ 2) system where every step of the educational ladder has been changed, some only in length, others in both length and contents.

- 1. In the reformed system, primary education is now divided into two 4-year groups (grades 1–4 and 5-8).
- 2. At the end of the grade four, pupils take a national exam and must achieve a score of at least 50% in order to continue to grade five.
- 3. At the end of grade eight, pupils take the National Primary School Certificate exam.
- 4. After these eight years, they attend the two-years of general secondary education (grades 9-10).
- 5. At the end of grade 10, pupils take the Ethiopian General Secondary Education Certificate (EGSEC).

This exam is administered by the Ministry of Education's National Organization for Examinations (NOE) and is the same in every part of the country. Based on the exam-scores pupils are channelled into one of two educational systems:

• 2-year preparatory (formerly the senior secondary) school, or

• Vocational training in the Technical Vocational Education and Training (TVET) system.

The new 2-year preparatory-school has a stronger identity as a qualifier to higher education. Making the pupils choose so-called "streams" with specific courses which will have impact on what subjects they may choose between in the various HEIs. In addition, the 12th grade became a hybrid between senior secondary and higher education when the curriculum of the freshman (first) year of higher education was "moved down".

Officially, the reason for this was a strengthening of the secondary/preparatory education. In our meetings the institutions reported that many believed it was so that higher education could be shortened and degree holders quicker could go into the workplace. The preparatory school ends with the Ethiopian Higher Education Entrance Examination (EHEEE), though on the document issued it is called Ethiopian Higher Education Entrance Qualification Certificate. Those pupils who score above the cut-off point, which changes annually, go on to public universities. For those who score below the cut-off point the choice is between private institutions or no higher education at all.

3.2.2 Higher education

As the freshman-year was relegated to preparatory school, the normative length of all higher education was shortened by one year. If the degree had been a 4-year bachelor it became a 3-year one. No subject or course escaped the change. Engineering went from five to four years, and even medical degrees went from six to five years in duration.

During the first four years following the change in 2003, it was not uncommon to see transcripts from HEIs where the first year had simply been removed and the students' first courses were at a second-year level.

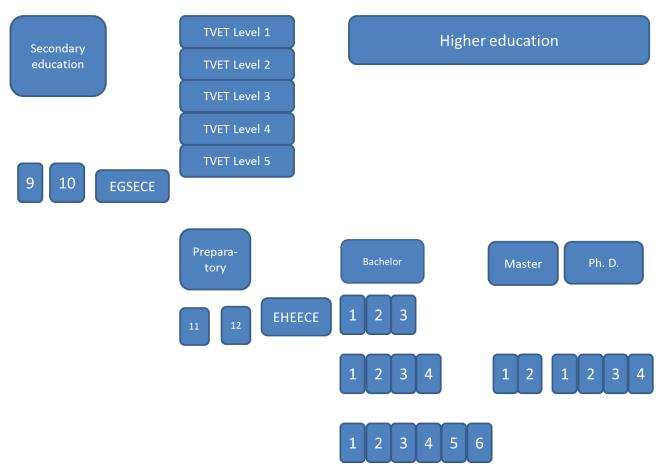
The controversy surrounding the reform of the higher education system itself was rooted in the government's assertion that the new, shortened, degrees were of the same quality as the older degrees, and that the knowledge imparted in the freshman year would now be given at the 12th grade instead. That there was no loss in the amount of information and knowledge, with the "loss" of a year, was for some difficult to believe. This belief is, perhaps, supported by HERQAs later statements that the "*curriculum was shifted downwards*".

The major impact of the reform was in higher education itself. It started with the expansion of institutions, both public and private. It continued with the shortening of the bachelor degrees, and the relegation of the diploma to non-higher education.

Up until this time, the diploma had been shorter programmes given in a multitude of subjects. Most of these could be transferred into degrees, but some could not. All had been considered higher education as they were given by HEIs, both at public universities and private institutions. This ended. With the reforms, the diploma programme was no longer considered higher education though for a time it continued to be offered at HEIs. As the diplomas had been given at universities, they were academic in nature, while they should have been a practical, hands-on, way of learning. The reform shifted all curricula in this direction to the extent that it even renamed the system of education on that level. The outcome was the establishment of the Technical Vocational Education and Training (TVET) sector.

3. New system

The new system of non-tertiary and higher education:



3.3.1 Higher education

After the new shorter bachelor degrees were introduced in the 2003 intake, it quickly became apparent that the degrees were not delivering the learning outcomes in the way that was expected. Criticism from students, institutions' staff and employers meant that already after three years most of the first degree programmes went back to the 4-year normative study length. Those subjects with a strong technical/hands-on character (e.g. nursing, engineering and medical/pharmacology) were the first to go back to their pre-reform lengths. HERQA informed us that today there are no more three-year bachelors in Ethiopia and that only those who had been enrolled in one between 2003 and 2006/2007 would be issued with 3-year bachelor degrees. Other sources at the institutions claim that enrolment in the 3-year degrees went on for as long as 2011. All agree that bachelor degrees presently are four years, as it was before the reforms.

The differences in grade-requirements for admission to the bachelor degree means that those at private institutions cannot transfer to a public institution, as their grades from the EHEECE are not seen as adequate for the public institutions.

As seen in many countries going from a system where higher education was provided for a small elite to a system where higher education is becoming more accessible for larger parts of the population, Ethiopia lacks faculty and teaching staff. Both in the public and in the private HEIs, everybody we spoke to admitted that recruiting teachers was difficult. While the growth in HEIs has been immense, the quantity of teaching staff has not followed suit. Government-set requirements for the number of master and Ph.D. degree holders teaching at the various levels of higher education have sent institutions working fervently to employ enough staff. The Ministry of Education stated in a meeting that the aim was to have 50 000 graduates from master and/or Ph.D. studies by 2015, of which 75% on the master level.

As in Eritrea, the so-called "fast track masters" exist, where students from several disciplines share the course-based methodological subjects during the first year of study, before going on to their subject specific thesis writing¹.

Although a number of universities have functioned for years, Addis Ababa University is still the flagship institution with 69 different Ph.D. programs. In addition to in-country programs, there are extensive programs in Ethiopia for sending graduates for Ph.D.-studies in India. Currently, there are 172 students doing a degree there.

These plans notwithstanding, in most private and public higher educational institutions you will find "graduate assistants" doing much of the heavy lifting in teaching on the first cycle degrees. These "assistants" are in reality bachelor degree-holders with good grades that have been recruited into teaching bachelor level classes. Some may have started their master levels, but from what we were told, most have not. In meetings at the Norwegian Embassy, we were informed that there had even been cases of bachelor degree holders becoming heads of department in rural HEIs.

The Ministry of Education stated in a meeting that all master degrees are two years long and have a thesis, though HERQA amended this to most degrees following this pattern. NOKUT has seen "non-thesis option" masters in math and there is all reason to believe that those degrees without thesis are clearly marked as such.

Admission to master programs in the public HEIs are in theory open to bachelor degree graduates from the private HEIs as the admission requirement is based on grades. In reality, it is difficult to move from one sector to the other as the Ministry of Education tends to "fill up" classes with degree holders from the public universities. Most graduates from a private institution will have little choice but to continue in the private system of education.

4. Technical Vocational Education and Training (TVET) education

Vocational education with a focus on practical, hands-on, subjects.

Technical Vocational Education and Training has today both taken on, and expanded, the role the older diplomas had in the Ethiopian educational system. With the diplomas being phased out of HEIs with the last intake officially in 2003/2004, the new TVET-institutions began issuing diplomas with curriculums focused more on practical skills and industry occupational standards than previously. The old diplomas, with their possibility of credit transfers into a degree programme, gave way to a system where there is less permeability between vocational and higher education.

TVET is given at both public and private institutions. It is a government priority to increase the number of students in non-agricultural TVET. According to the Ministry of Education's EMIS from

¹ There is disagreement on the figures (with HERQA quoting somewhat lower figures), but the number of students being "pushed" into postgraduate studies are high. Addis Ababa University, with over 7 000 enrolled in graduate studies in 2009, said they to some extent were "producing" master degree holders for all the other institutions in the country. The "Education Statistics Annual Abstract 2010/2011" from the Ministry of Education's "Education Management Information System" (EMIS) claims that 20 000 students were enrolled in master degree studies.

2010/2011, the number of TVET institutions in 2010 was 505. Enrolment has increased by an average of 18% per year and in the 2010/2011 academic year the number was at just over $371\ 000^2$. Teacher Education Colleges are usually not regarded as TVET, although they are organised in much the same way, with the number of enrolled at just over 164 000 in 2010/2011.

The grade point average (GPA) after the 10th grade Ethiopian General Secondary Education Certificate (EGSEC) is decisive when it comes to further education. Pupils with grades better than the annually set cut-off point have no choice but to go on to preparatory, while those with a GPA under the cut-off point are channelled into the TVET-system. There are five levels to TVET (10+1, 10+2, etc.), each lasting one year. Based on their results from the EGSEC, pupils are placed into one of the five levels. The lowest scorer stays for one year, the highest scorer for four or five. The skills taught follow a similar escalation in complexity.

Accredited TVET-institutions and courses are found in the HERQA database, but it should be noted that these accreditations are older, expiring in late 2008/2009, and given to HEIs that today have separate departments for TVET. Today, a department in the Ministry of Education accredits TVET institutions and programs.

5. Documentation

3.5.1 Temporary Certificate / Final Degree

It is common to see the Temporary Certificate when students from Ethiopia apply for studies abroad. While there are some differences between the public and the private institutions, the norm is that a temporary certificate of graduation (be it from bachelor or master programme) is given immediately. One known exception are medical doctors where we have been informed about a three-four year mandatory work-period before even the temporary certificate is issued. The final degree certificate may however take as much as two years to be issued. The institutions we talked to said it almost never happens earlier than one year after graduation. At the public universities, there seems to be a requirement that these are received in person. The private HEIs, while taking just as long, seem to be somewhat more lenient on this last part. Within Ethiopia, the two documents have equal value for both employment purposes and admission to further studies.

3.5.2 Transcripts

When viewing transcripts from HEIs, the course-codes located on the left side of the titles of the subjects provide useful information. Typically given as a three or four letter abbreviation and three digits, i.e. "ENSC 401" or "FOR 321", the letters are indicative of either the degree specialisation itself (here English and Forestry) or of the specific course name. According to HERQA, the first digit shows what year the subjects should have been taken in (here fourth or third respectively), the second digit what semester, and the third is a code for the subject itself. NOKUT has however seen great variation in transcripts from a number of institutions.

The Ethiopian system is loosely based on the American system. The number of credit-hours shows whether a degree has been passed or not. If enrolled in a normal day-time degree course at the bachelor level, 15-18 credits per semester is the norm. However, a student can take as much as 21/22 credits in a semester if the institution itself thinks he or she is capable of it. This is only possible after

 $^{^2}$ The number of TVET institutions went up from 17 in 1996/1997 to 199 in 2004/2005, with the Ministry of Education reporting in 2008 that only 3% of the relevant age group was covered. Enrolment had grown from 3 000 in 1996 to 106 305 in 2004.

applying to an in-house academic commission. Evening, or part-time, degree programs have no more than 12 credits per semester as the norm.

The transcripts are sent directly from the HEI to other institutions upon request. These copies are stamped with the words "not valid if transcript is handled by applicant", though some institutions use "student" instead of "applicant".

It should be noted that dates sometimes follow the Ethiopian calendar, and sometimes the European (Gregorian) Calendar. The difference is 7-8 years depending on time of year.

6. Admission to higher education

Since 2001, admission to higher education has been based on the GPA from the Ethiopian Higher Education Entrance Examination (EHEEE) taken after the last year of preparatory school (12th grade). Based on the GPA and a cut-out-point set annually by the Ministry of Education an, it will be decided who gets into public HEIs and who has to seek admission in the private HEI sector. The public HEIs offer education virtually free while the annual fee at a private institution can reach \$800 annually. In a country where the monthly income might be around \$15, the price of education has huge impact.

Starting from the 2003/04 academic year, students enrolled in public universities where required to cover parts of their own education. Such cost includes full expenses related with boarding and lodging and minimum 15% of tuition related costs. Repayment was originally meant to start after six months if the graduate had a job and after one year otherwise. Interviews at both Addis Ababa University and HERQA expressed that the first repayment was after one year. In all, students are contractually bound to repay about 15% of the total cost.

In the admission process, students choose the subjects of study they are interested in and indicate which specific institutions they would like to enter. During the two years of preparatory, they have taken subject specific "streams" which also play a part in determining what subjects they may apply for. The Ministry of Education distributes them according to what is described as "talent distribution". The consequence is that a student may get the field of study he applied for, however not the institution.

Admission requirements for students wishing to take distance education are similar to those who attend campus based education.

For those who did not do well on the 10th grade Ethiopian General Secondary Education Certificate (EGSEC) exam and were therefore sent into the TVET system, there is one more chance to enter higher education. After finishing level five of the TVET-system, they must have worked two or more years before passing the Centre of Competences (CoC) exams as well as what is described as the University entrance exam. The CoC exam tests the knowledge of the specific occupational level, while the University Entrance Exam in reality is no more than the more traditionally oriented academic 12th grade EHEECE. If these hurdles are passed, the prospective student may enter a public HEI. Sources are unclear as to whether the requirements for the post-TVET group are as strict with regards to admission to private HEIs.

7. Credit transfers for older diploma programmes

A credit transfer of older diplomas into degree programmes was fairly usual under the old higher education system. Even today, it is acceptable to come with an older diploma and have this credited into the first or second year of a bachelor. Crediting is done at the institution itself, but there were, and still are, strict national regulations on what can be included. Up to 1/3 of the credits may be transferred into the new degree, a so called "core course" cannot be credited and all "support courses" must be passed with at least a C.

8. Accreditation

HERQA

As the reforms in higher education gained speed in the early 2000s, it was evident that the private institutions were multiplying both in number of institutions and programs offered faster than the Ministry could respond. In the Government's 2003 Higher Education Proclamation (351/2003) "the establishment of an effective national quality and relevance assurance organization to ensure relevance and quality standards in a massified system" was announced and the Higher Education Relevance and Quality Agency (HERQA) were established.

According to one source at the Norwegian Embassy, the announcement of HERQA was bad news for a number of institutions. Several private institutions quietly closed down without even trying for a reaccreditation.

HERQA is today a member of the International Network for Quality Assurance Agencies in Higher Education (INQAAHE).

Initially, HERQA gave both pre-accreditation and accreditation to institutions and degrees. The preaccreditation was given when an institution had reached the minimum requirements for accreditation, and seems to have been most prevalent in institutions with only a few degrees offered. The accreditation was only given when the minimal requirements had been met several years in a row. HERQA has said that an institution needed to have at least three years of fulfilling all standards before an accreditation could be issued. Today only accreditation and re-accreditation are issued. The preaccreditation category seems to have been phased out before 2010.

The HERQA database for accredited institutions and degrees is accessible here: http://www.herqa.edu.et/index.php/accreditation/searchaccriditationdb

Many of the private HEIs in Ethiopia have campuses around the country. A few institutions mentioned having campuses in Sudan and Somalia. Each of the campuses is accredited separately by HERQA. The accreditation process is the same for both the central campus and its branches.

The evaluation is carried out by HERQA staff and one external expert and is based on information provided by the institution seeking the accreditation. It also includes site visits. Both HERQA and private HEIs say that the process has taken too long in the past, six-nine months were mentioned, but that this has been improved over the last year. During talks in October 2012 HERQA said that the number of applications for accreditation denied during first-cycle degree applications was around 50%. With re-accreditation, the number was still as high as 25%.

As a result of the Higher Education Proclamation in 2009, if a HEI fails to get re-accreditation for a degree, two procedures have been put in place to safeguard the students. Students enrolled in a degree

program which does not get re-accredited may complete the academic year if it is the last year and graduation follows no more than one year after re-accreditation has been rejected. For all other students enrolled in the program it is now the responsibility of the institution to secure admission for students into alternative HEIs to secure that the students graduate.

Subjects in curriculum

The 2009 Proclamation introduced a change in government policy regarding what subjects are taught in higher education. While the 70/30-policy, as shown under, does put into question institutional autonomy, the shift in subject focus is one discussion that is mirrored in many other countries. The new policy simply put calls for an emphasis on "engineering, technology and the natural sciences" subjects/degrees while "social sciences and humanities" are to be offered to fewer students.

The 70/30 guidelines suggest distribution in the following ways:

1: Engineering and IT - 40%, 2: Basic sciences (biology, physics etc.) - 20% 3: Agriculture - 5 % 4: Health - 5% ------5: Economy / business - 20% 6: Social studies -10%

All institutions we talked to, both public and private, as well as the Ministry of Education and HERQA, said that the redistribution of subjects was progressing according to plan. With the new emphasis on natural science programmes, both the private and public HEIs informed us of "needs assessments" being important – i.e. asking the question: "does the nation need this subject?" This was a question which institutions now had to provide good answers to before applying for accreditation.

While the private institutions have HERQA to assess educational quality, the newer public universities are left more on their own. There are developmental guidelines issued by the Ministry of Education. Private institutions should by law have a department working on "academic standards and quality enhancement", but there are gaps between theory and reality.

Sources at private institutions informed us that as of the academic year 2010/2011 private HEIs were no longer allowed to give degrees in Law or Medicine. These degrees were to be issued exclusively at public universities.

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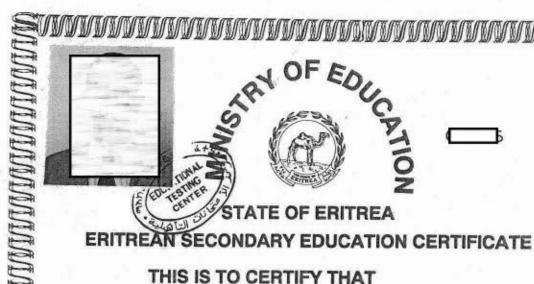
10. Appendix

The following are examples of documents issued in Eritrea and Ethiopia:

- 1-7: Secondary education Eritrea, 1993-2012
- 8: Official student record, Eritrea
- 9: Temporary Diploma, University of Asmara, Eritrea
- 10: Final Diploma, University of Asmara, Eritrea
- 11: Temporary Diploma, College of Business and Economics, Eritrea
- 12: Ethiopian Higher Education Entrance Qualification Certificate, Ethiopia
- 13: TVET transcript, Ethiopia
- 14: Transcript, Hawassa University, Ethiopia
- 15: Temporary Diploma, Public University, Ethiopia
- 16: Temporary Diploma, Unity University College, Ethiopia
- 17: Final Diploma, Addis Ababa University, Ethiopia
- 18: Final Diploma, Unity University College, Ethiopia

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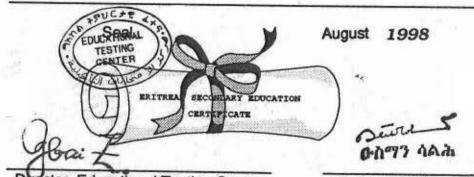
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By virtue of which, this certificate is awarded with the following mention:



Director, Educational Testing Center University of Asmara

Minister of Education

This certificate is invalid unless it bears the photograph of the candidate with the seal of the Educational Testing Center. NO

Adulis Printing Press

994-2001

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	EDUCATION CERTIFICATE
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session, and has earned the 7 subject(s)	following grade(s) in
subject(s).	
English Language <u>c</u>	History C
Mathematics D	Geography B
Physics -	Book Keeping
Biology D	Economics
Chemistry	Agriculture D
General Science	General Knowledge D
By virtue of which this certificate	is awarded with the following mention
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Director, Consultancy, Training & T	esting Center Minister of Education
University of Asmara	
This certificate is invalid unless it be	ears the photograph of the candidate with the
	Nº 0
seal of the CTTC	

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ST	Chemistry	D	Agriculture	mics
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πππππ	has taken <u>TEN</u> subject session, and has earned the foll THREE subject(s).	(s) in the 2007 examination owing grade(s) in
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n n	English Language <u>C</u> Mathematics	History
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	Director, Consultancy, Training & Testing C University of Asmara	enter Minister of Education
i VM	This certificate is invalid unless it bears the seal of the CTTC	e photograph of the candidate with the Nº 05670

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	ERITREAN SECONDARY I THIS IS TO CERTIF	F EDUCATION CERTIFICATE EDUCATION CERTIFICATE
00	has taken seven subje	ect(s) in the 2008 examination
	session, and has earned the for	ollowing grade(s) in
J.	ONE subject(s)	
Ð	================================	U U
Į	English Language	History -
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SECONDARY EDUCATION CERTIFICATE BATTREAM SECONDARY EDUCATION CERTIFICATE BATTREAM SECONDARY EDUCATION CERTIFICATE SECONDARY

2009 - pupto now change of name from CTTC -D BSRE change of Seal @ -D ()

UNIVERSITY OF ASMARA

AME:	ID Not	-	SEX N	-	Cate of Britt	College/Faculty: Admission Classifi			
College/Facu	ity: EDUCATION Date of Admission	SEPT 20			Admitted From		Date: 2000		
Course Code	Course Title	Cr. Hrs	Grade	Gr. Pts	Course Code	Course Title	Cr. His	Grade	Gr Ph
	Acad, Yr. 2000/2001 Semester I				1	CUMULATIVE GPA = 2.04	Gen Poly	Giava	101.14
NGL 101	Freshman English I	3	C	6					1
ATH 101	Preliminary Mathematics	4	c	8		Acad, Yr. 2002/2003 Semester I			
HYS 100	Principles of Physics	4	č	8	EDUC 222	Instructional Media	3	8	9
HEM 100	General Chemistry	4	č	8	EDUC 301	Principles of Curriculum Inquiry	3	č	6
EOG 101	Int. to Geography of Eritrea	3	č	6	MATH 231	Applied Mathematics III	4	ĕ	4
HEO 101	Physical Education I	1.1	p		PHYS 341	Int. to Modern Physics	3	č	6
	GPA +	18	2.00	36	PHYS 371	Eléctronics I	3	č	6
	SEMESTER II		*	100	COMP 201	Int. to Computer Science	3	1 B	9
NGL 102	Freshman English II	3	c	6	0010 201	GPA #	19	2.11	40
ATH 162	Int. to Calculus	4	č	8		CUMULATIVE GPA = 2.06	18	2.11	40
IOL 100	General Biology	4	č	8		GONOCHTIVE OFA = 2.00			1
CON 101	Int. to Economics	3	č	6		SEMESTER II			L
IST 101	Int. to History of Entrea	3	č	8	EDUC 302	Curriculum Development	3	8	9
HED 102	Physical Education II		P		EPSY 202	Developmental Psychology	3	č	6
	GPA =	17	2.00	34	MATH 332	Applied Mathematics IV	4	č	8
	CUMULATIVE GPA = 2,00	1.0000			PHYS 306	Experimental Physics III	2	8	6
	Acad. Yr. 2001/2002 Semester				PHYS 312	Classical Mechanics	2	ž	Å
PSY 211	Int. to Psychology	3	C	6	PHYS 372	Electronica II	3	ĉ	6
NGL 201	Sophomore English I	3	c	6	1.1.1.2.0.0	GPA =	18	2.11	38
HYS 211	Mechanics & Heat I	3	č	6		CUMULATIVE GPA = 2.06	10	2.00	30
HYS 271	Elec. Magn. Optics I	3	č	6		GOMOLATIVE OFA = 2.00	1		
ATH 231	Applied Mathematics (4	C	8		Acad. Yr. 2003/2004 Semester I			
'HYS 205	Experimental Physics I	1	c	2	PHYS 405	Experimental Physics IV	3	c	6
	GPA =	17	2.00	34	PHYS 401	Computational Physics	3	ŏ	3
	CUMULATIVE GPA = 2.00	Down-	0000	1.544	PHYS 441	Quantum Mechanics	2	č	4
	1 31 30 10 10 10 10 10 10 10 10 10 10 10 10 10				PHYS 451	Solid State Physics I	3	č	6
	SEMESTER II		D		PHYS 461	Electromagnetic Theory I	3	1 B	3
ATH 232	Applied Mathematics II	4	C	8	EDUC 411	Advanced Instructional Methods	3	8	9
OUC 211	General Mehtods of Teaching	3	В	9		GPA =	17	1.82	31
NGL 202	Sophomore English II	3	č	6		CUMULATIVE GPA = 2.03	1.06	1.02	31
HYS 212	Mechanics & Heat II	4	č	8		COMOLATIVE OFA = 2.00		1	
HYS 206	Experimental Physics II	1	C	2		SEMESTER II			
HYS 272	Elec, Magn. & Optics II	4	C	8	PHYS 472	Physics Optical	3	C	6
	GPA =	19	2.16	41	PHYS 406	Experimental Physics V	2	č	0
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ourse Code	Course Title	Cr. Hrs	Grade	Gr. Pts	Course Code	Course Title	Cr. Hrs	Grade	Gr. Pts
	Statistical Mechanics	1 3	B	1 9				1	1
	Teaching Practice	3	8	9	1 1			1	1
DUC 332	Social Foundation of Education	1	17	ß					1
	Education Measuremental and Evaluation	3	°c	6					
1.01.416	GPA =	18	1.89	34	1 1				
	CUMULATIVE GPA = 2.01 Academic Probation			1 23					
	Re-Sit Exam on Sept. 21, 2004	1 .	1	0	1 1				
HYS 312	Classical Mechanica	3	F	12	1 1			1	1
DUC 332	Social Foundation of Education	4	B	_					
	GPA =	7	1.71	12				1	
	CUMULATIVE GPA = 2.10 Academic Dismissal								
HYS 401*	Re-Sit Exam on Febr. 22, 2005 Computational Physics	3	c	6					
MTS 401	GPA =	3	2.00		-				
	CUMULATIVE GPA = 2.15	1	+	ľ				1	
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	UNIVERSITY NATIONAL SERVICE				1				
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UNIVERSITY OF ASMARA

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TEMPORARY CERTIFICATE OF GRADUATION

HAS BEEN AWARDED

BSC DEGREE

IN

PHYSICS

FROM THE FACULTY OF EDUCATION

ON JULY 08, 2006.

THIS CERTIFICATE OF GRADUATION HAS BEEN GIVEN PENDING THE PRINTING AND ISSUANCE OF THE ACTUAL DIPLOMA.



Tel. 291-1-161926

Fax: 291-1-162236

UNIVERSITY OF ASMARA



By virtue of the authority vested in the Academic Senate of the University of Asmara and upon the recommendation of the Faculty

> is nereby awarded the begree of Bachelor of Science in

plant science

together with all the Rights, Privileges and Honours thereto appertaining under the seal of the University. Given at Asmara, Eritrea this fourth day of August Two Thousand-Two

Dean

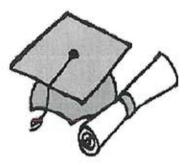
President



COLLEGE OF BUSINESS & ECONOMICS, HALHALE

Ref. No. : ADMISSION YEAR : 2004

Date: Wednesday, June 23, 2010



TEMPORARY CERTIFICATE OF GRADUATION

ID. No:04/812

Sex: F

HAS BEEN AWARDED

B.A. DEGREE INFINANCE

ON: 3rd OCTOBER 2009.

THIS CERTIFICATE HAS BEEN GIVEN PENDING THE PRINTING AND ISSUANCE OF THE ACTUAL DIPLOMA.



Mailing Address: College of Business _Economics, Halhale P.O. Box 12492, Asmara - Eritrea.



452105

Curaticate of Approval

NATIONAL ORGANIZATION FOR EXAMINATIONS (NOE)

The Ethiopian Higher Education Entrance Qualification Certificate

This is to certify that _

has taken 5 (FIVE) subject(s) in the Entrance Qualification Examination and has earned the following score(s) in 5 (FIVE) subject(s).

English	76
Maths(Natural)	48
Aptitude	53
General Science	50
Civic & Ethical Edu.	77

304

TOTAL

Manager, NOE

Head, Exam. Administration Division

JULY 2004(HAMLE 1996 E.C.)

GRADES ARE AWARDED AT THE FOLLOWING LEVELS

Seal

Certificate of Approval

Control & Arich My Controls

POOR – 0 - 100 SATISFACTORY – 101 - 200 GOOD – 201 - 250

V. GOOD - 251 - 300 EXCELLENT - 301 - 400

NB: The grade levels indicated on the certificate are not valid.

This certificate is invalid unless it bears the NOE seal on the photograph of the candidate.



Transcript for MIDDLE LEVEL TVET YEAR THREE TRAINING PROGRAMME

REGION: 14

NAME OF THE TRAINING CENTER: ADDIS ABABA COLLEGE OF TECHNOLOGY AND COMMERCE NAME OF THE TRAINEE: 1.2

SEX: F______AGE_____YEA OCCUPATIONAL TITLE: JUNIOR ACCOUNTANT YEAR: 1997 E.C.

\$.N	· Course Title	Training hrs.	Max. Achievable Marks	P
1	Main Courses	1	181	FARMONT
1.1	Introduction to Fund Accounting		112	
1.1.1	In School training	137	10	Car 8.30
1.1.2	Project work	36	3	2.55
1.1.3	Apprenticeship	80	6	6.00
1.2	Introduction to Tax Accounting			
1.2.1	In School training	103	7	4.55
1.2.2	Project work	15	1	0.84
1.2.3	Apprenticeship	89	6	6.00
1.3	Introduction Computerized Accounting			
1.3.1	In School training	154	11	9.79
1.3.2	Project work	15	1	0.90
13.3	Apprenticeship	69	5	5.00
1.4	Introduction to Auditing			1
1.4.1	In School training	176	13	7.15
1.4.2	Project work	34	2	1.64
.4.3	Apprenticeship	74	5	5.00
ć.	Supportive Courses	Iva		
8.1	Introduction to Statistics Student C	80	6	3.00
	Common Courses			
3.1	Mathematics		5	2.50
3.2	English	75	5	2.80
3.3	Civics	50	4	2.56
3.4	Web Development	50	4	2.80
3.5	Business Growth Strategy	80	6	3:24/
	TOTAL	1,392	100 0	74.62

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BABA COLLEGE

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Dean of the College

This Topy right with the prepared in 3 copies; I" copy will be given to the Trainee, 2" copy for the record office and the 3" copy will be gated with the prepared in 3 copies; I" copy will be given to the Trainee, 2" copy for the record office and the 3" copy will be gated with the prepared in 3 copies; I" copy will be given to the Trainee, 2" copy for the record office and the 3" copy will be gated by the Bureau head.

Kongsgård skolesenter

HAWASSA UNIVERSITY STUDENT ACADEMIC RECORD OFFICE OF THE REGISTRAR P.O.BOX 5, AWASSA, ETHIOPIA

Course No	Course Title	Cr. Hrs	Grade	Gr. Pts	Course No	Course Title	Cr. Hrs	Grade	Gr. Pts
	First Semester 2005/2006				1				
Phys 201	Mechanics and Heat	4	B	12	1000 CO 1000	First Semester 2006/2007	1 28	1.000	1 35
Math 235 CEED 201	Applied Mathematics I	4	c	8	Phys 312	Junior Lab	23	B+	7
	Civics & Ethical Education	3	C	6	Phys 376	Electrodynamics I	3	C	6
Comp 201	Int. to Computer Science	3	B+	10.5	Phys 342	Quantum Mechanics I	3	C+	7.5
Phys 211	Experimental Physics I	2	C+	5	Phys 372	Modern Optics	3	C	6
		16	2.59	41.50	Stat 273	Int. to Statistics	3	C	6
		- 22	2010/04	3950294	Math 232*	Applied Mathematics II	4*	D*	4*
	Semester Average: 2.59	1					18	2.03	36.5
	Second Semester 2005/2006				1 1			2.00	
Phys 202	Electricity and Magnetism	4	c	8	1 1	Semester Average: 2.03			
Math 232	Applied Mathematics II	4	F	0		Cumulative Average: 2.30	2		
hys 242	Modern Physics	3	c	6		First Semester 2007/2008	(L.		
Comp 212	Fundamentals of Programming	3	B	0	· · · · ·	Charlot Martin 2000			
Phys 212	Experimental Physics II	2	B	6	Phys 411	Experimental Physics IV	2	в	6
FIEn 201	Sophomore English	3	c	6	Phys 451	Solid State Physics	2 3 2 3	č	6
		19	1.84	35.00	Phys 491	Research Methods in Physics	2	B	6
	Semester Average: 1.84	1000	1.01	22.00	Phys 473	Laser Physics	2	D	3
	Cumulative Average: 2.19				Phys 481	Nuclear Physics	3	c	
	First Semester 2006/2007				Phys 392		6		6
Comp 305	Data Structures & Algorithms	3	D+	4.5	Phys 461	Practical Attachment in Physics	3	A	24
len 211	Technical Report Writing	3	B	9		Electronics II		C+	7.5
hys 331	Classical Mechanics I	3	C	6	Math 331	Applied Mathematics III	4	D	4
hys 321	Statistical Physics I	3	č		1	A LAND CONTRACTOR	26	2.40	62.50
hys 361	Electronics I	3	B	6		Semester Average: 2,40			
nys 501	Electionics 1			9	100013	Cumulative Average: 2.33			
	S 0.20	15	2.30	34.50	NOT VAL	I. TRANSCRIPT	09	1 41	
	Semester Average: 2.30				NOTHAND	- TRANSUM /	hern	2 Falir	~
11 . C	Cumulative Average: 2.22 n: A= Excellent, B*= Very Good, B Go	1				1 1 1 1 1 1 1 1		1. 1	10

Medium of Instruction: English Sex M Date of Birth 1988 G.C Test Dates EHEECE 2005 Degree Date of Award July 10, 2008 Major: Applied Physics Degree Admission Classification Resources

Date Issue ... 8 2 JUL 2012.....

Registrar. The niversity

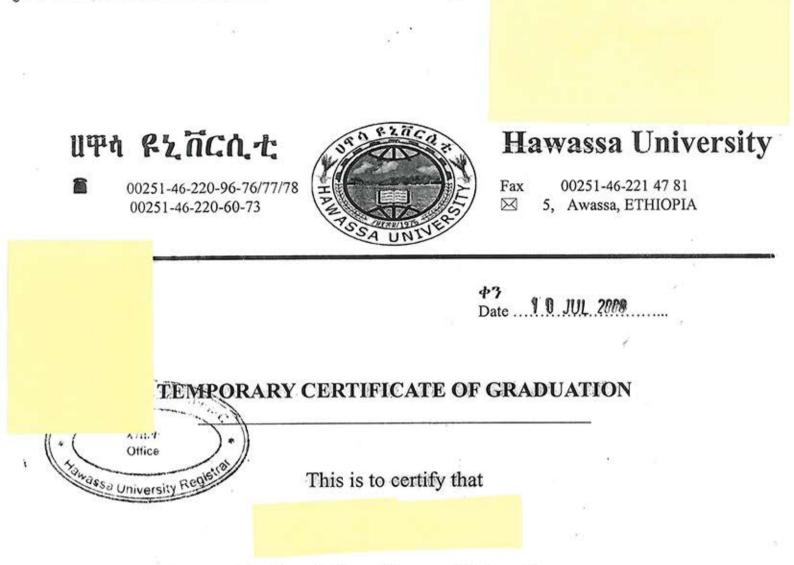
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Medium of Instruction: English Sex M Date of Birth 1988 G.C Test Dates EHEECE 2005 Degree Date of Award July 10, 2008

Course No	Course Title	Cr. Hrs	Grade	Gr. Pts	Course No	Course Title	Cr. Hrs	Grade	Gr. Pts
Phys 492 Comp 316 Phys 478 Phys 482 Phys 412 Math 331	Second Semester 2007/2008 Senior Project Object Oriented Programming Fiber Optics Radiation Physics Advanced Electronics Applied Mathematics IV Semester Average:2.75 Cumulative Average:2.41	4 3 3 4 20 NOT H OFF	B+ C B B+ C 2.75 VALID II ANDLED	14 6 7.5 9 10.5 8 55 55	CRIPT IS DENT ANSCI	IPT	C.C.C.		

Grading System: A= Excellent, B*= Very Good, B Good C*= Satisfactory, C Fair D*=Unsatisfactory, D Poor F= Failure, I= Incomplete Points A= 4, B*=3.5, B= 3, C*=2.5, D*=1.5, D=1, F=0. One class hour, or 2-3 laboratory hours, per week for 16 weeks= one semester hour or credit. *Course Repeated, TR-Credit Transfer: **Project/Senior paper. HE TRANSCRIPT IS OFFICIAL ONLY WHEN SIGNED AND SEALED BY THE REGISTRAR

Registrar



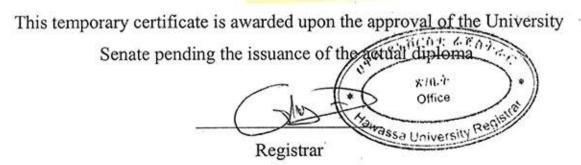
Graduated from Hawassa University

WITH A BACHELOR OF SCIENCE DEGREE

IN

APPLIED PHYSICS

On



UNITY UNIVERSITY COLLEGE OFFICE OF THE REGISTRAR

Tel. 566403/627079 Fax.251-1-46 58 33 E-mail Unity.educ @ telecom.net.et P.O.Box 6722, Addis Ababa, Ethiopia



This is to certify that

has Graduated from Unity University College

Faculty of Information Technology and Computation Sciences

with BSc Degree in

Management Information System

On 12th July 2006

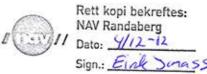
This Temporary Degree has been given pending the printing and issuance of th actual degree.

Rett kopi bevitnes istrar

A.V. President

TRONDHEIM KOMMUNE Kvalifiseringssenter for innvandrere 7004 Trondheim Tlf. 72 54 17 50





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በ አይዳ አበራ አካለወልድ

ሰጥቷል።

ለዚህም፡ ምስክር ፡ ይሆን ፡ ዘንድ፡ በዲፕሎማው፡ ላይ፡ የዩኒቨርሲቲውን፡ ማኅተም፡ አትም፡ ፌርሞበታል፡፡ አዲስ፡ አበባ፡ ታህሳስ፡ አሥራ፡ ስድስት፡ ቀን፡ ሁለት፡ ሺህ፡ አንድ፡ ዓመተ፡ ምሕረት፡ ተሰጠ፡፡ The Senate of Addis Ababa University by virtue of the powers vested in it by the Council of Ministers regulations No. 113/1993 hereby grants to:

THE DEGREE OF Bachelor of Arts (in Accounting and Finance)

with all honours, privileges and obligations pertaining thereto and in witness thereof has authorized the issuance of this diploma duly signed and sealed. Issued in Addis Ababa on this Twenty-fifth day of the month of December in the year Two Thousand Eight.

የበብክስና ኢኮኖሚክስ ፋኩልቲ ዲን

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R2.4: R2.ACAA: MAE Unity University College

የዩኒቲ ዩኒቨርሲቲ ኮሌጅ የትምህርት ንባዔ The Senate of Unity University College, by birtue of the ከትምህርት ሚኒስቴር በተሰጠው powers vested in it by the Ministry of Education ሥልጣን መሠረት፣ has hereby granted the Degree of የአርት ባችለር ዲግሪ **Bachelor** of Arts ስካመንቲንግ Accounting ín ከሙሉ ክብሩ፣ ጥቅሙና ግዬታዎቹ ጋር with all honors, privileges and obligations à. ሰጥቷል። to ለዚሁም ምስክር ይሆን ዘንድ የዩኒቨርሲቲ ኮሌጁን ማህተም አትም ፈርሞበታል። pertaining thereto and in witness thereof has authorized its issuance duly signed and sealed. had mant Are yat ቀን ሁለት ሺህ C ዓመተ ምህረት ተሰጠ። Issued in Addis Ababa on this twenty second w dap UKT. of the month of _____March in the year Dek 2012 two thousand and eight les ፐሬዚዳንተ የአካዳሚክ /ም/ፕሬዚዳንት President Academic Dice President CANDIDATE NO. 1502/97 VERIFICATION NO. 016290