



The National Report of the Ministry of Higher Education and Scientific Research
in the Republic of Yemen
Provided to the Third International UNISCO Conference for Higher Education 2022

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Introduction:

The UNESCO International Conference for Higher Education meant to be held from 18 through 20 May 2022 is significantly important. It tries to shed light on issues related to higher education and analyze and study them so as to offer support to counties taking part in the conference in the light of rights laws and the international goals of sustainable development. The Ministry of Higher Education in Yemen welcomed the UNESCO invitation to take part in the conference. It was submitted to the ministry by the National Committee of the UNESCO in Yemen.

The Ministry of Higher Education wholeheartedly accepted the invitation and took procedural steps. More specifically, it coordinated with the National Committee. A number of meetings have been held to discuss the conference agendas and framework and prepare a shared mechanism. A number of national experts have prepared a report that included the necessary information on a number of higher education issues in Yemen.

Based on the results of related studies, researches and official documents of the ministry, the team has come with a report that includes the history of higher education in Yemen and its evolution, the geographic distribution of higher education institutes, the statistical indicators of inputs/outputs of the program, the ensuing negative effects of covid-19, and the ministry's measures to prevent it. Among the other things included in the report are the goals of sustainable development and the means of encouraging scientific research, social services and accrediting graduation certificates according to the UNESCO Agreement and the evaluation measures, quality and the moral responsibility of Higher Education and companies. The challenges and recommendations are also highlighted .

After the report had been proofread and revised, an Arabic version has been approved by the Minister of Higher Education. Then, it was translated into English and sent to the UNESCO in hope that it would give a typical image to the conference and those in charge of higher education worldwide about its situation in Yemen and the most difficult issues that face them. It also touched upon the governments and social measures to overcome them. The ministry looks forward to getting recommendations from those in charge to mitigate the problems and to alleviate the consequences of covid-19 and the seemingly endless war on higher education. All this has resulted in cutting us off from the rest of the world, preventing higher education employees from attending the third International UNESCO Conference planned to be held in Barcelona, tending this report the only possible way to make our voice reach the world.

- Rise of Higher Education in Yemen:

The area of Yemen is about 555000 square kilometers with a population of about 30 million based on 2021 statistics, distributed among 135000 population gatherings. This increases the challenges facing the government. Youth at the age of university education (19-23) are reported to be 2,745,823 .

Higher Education history dates back to 1970 when two governmental universities were opened, namely Sana'a and Aden Universities. These two universities kept expanding by means of establishing new colleges to be part of them. It was in 1994 when a new phase was stated in the history of higher education as the private sector started investing in the field: The University of Science and Technology became a reality. In the late phase of 1995 and beginning of 1996 a number of presidential republican decrees were made to establish five governmental universities, namely Taiz, Dhamar, Ibb, Hadramaut and Hodeida. Then many more both governmental as well as private universities were opened to be 86 universities in 2021 twenty of which are governmental. As for the Ministry of Higher Education, it was established in 1990.

- Geographic Distribution of Higher Education Institutes in Yemen:

Higher Education Institutions are distributed as follows:



Table (1): Distribution of Yemeni Governmental and Private Universities and their Branches as per Governorates until 2021

No.	Governorate	Governmental	Private	Total	Percentage %
1.	Sana'a	2	33	35	40.6%
2.	Taiz	1	9	10	11.5%
3.	Ibb	2	7	9	10.5%
4.	Aden	1	4	5	5.7%
5.	Hodeida	1	5	6	7.0%
6.	Hadramaut	2	4	6	7.0%
7.	Dhamar	1	3	4	4.6%
8.	Amran	1	-	1	1.2%
9.	Al-Bayda	1	-	1	1.2%
10.	Hajjah	1	-	1	1.2%
11.	Sa'dah	1	-	1	1.2%
12.	Lahij	1	-	1	1.2%
13.	Shabwah	1	-	1	1.2%
14.	Abyan	1	-	1	1.2%
15.	Al-Dhalea	1	1	2	2.3%
16.	Marib	1	-	1	1.2%
17.	Al-Jawf	1	-	1	1.2%
Total		20	66	86	100%

- Enrollment (input) Indication of Higher Education

The academic year 2018-2019 witnessed a decrease by 0.29% in governmental universities compared to the year 2013-2014. In private universities the decrease was 5.44% compared to the academic year 2013-2014.

Gender statistics show that the number of male students has decreased by 0.48%, whereas the number of female students has increased by 0.06% compared to the year 2013-2014. The private universities have witnessed a dramatic decrease of both male and female students by 7.14% and 1.29% respectively. This noticeable decrease can be attributed to various reasons, the most important of which are the consequences of the ongoing war and its negative financial impacts on individuals and families. Another significant reason is the non-payment of salaries to the teaching staff at universities (these data did not include Aden and Hadramout Universities due to the lack of data from both institutes).

Table (2): Admission Parameters in Higher Education and Growth Percentage (2013-2019)

Statement	2013/2014	2018/2019	Growth Percentage
Governmental Universities			
Total of Students in Governmental Universities	174302	172279	- 0.29%
- Males	114286	112112	- 0.48%
- Females	60016	60167	0.06%
Number of Instructors	5035	6101	4.92%
Ph.D.		3041	
M.A		662	
B.A		2398	



Private Universities			
Total of Students in Private Universities	83.171	66511	- 5.44%
- Males	60.137	44639	- 7.18%
- Females	23.034	21872	- 1.29%
Number. of Instructors	2015	4116	19.55%
Ph.D.		1924	
M.A		1037	
B.A		1155	

- Output Indicators of Higher Education:

Male students' graduation signaled higher rates than female graduates in both governmental as well private universities. Male graduates reached 72% but female ones were only 27%. This dramatic decrease in the number of female graduates can be attributed to early marriage cases among girl students and their dropping out due to financial difficulties and hardships of life.

Table (3): Graduation Parameters in Higher Education 2018/2019

Universities	Males	Females	Total
Governmental	13385	4438	17822
Private	4661	2543	7129
Total	18046	6981	24952
Percentage	72.32%	27.98%	100%

- The impact of Covid-19 on Higher Education:

To identify its impacts, the Ministry of Higher Education conducted a study under the title "The Negative Impacts on Higher Education in Yemen and the Necessary Requirements to Face it". The results of this study were as follows:

- The pandemic has left universities financially unable to fulfil their responsibilities.
- Studying at universities was suspended.
- The demise of some academicians and administrative members. No reliable data is available about the victims.
- A state of fear, anxiety and panic prevailed among the teaching staff and the students.
- Deterioration in university education sector resulting in worse achievement rates.
- Deterioration in living standards of the teaching staff and employees in the situation of constant non-payment of salaries. Poor hygiene system has aggravated the situation.
- Inability of universities to provide on-line alternative education due to the institutes' poor technological services, unavailability of target educational materials, poor internet service and prevalence of technology illiteracy among both teachers and students, which poses an urgent need for soft material content of university syllabi to face Covid-19 pandemic and other urgent cases.
- Most Yemeni higher education institutes are still lacking in modern technology in administration.
- Yemen's inability to cope with the Aims of International Sustainable Development.

Efforts of the Ministry to Face the Impacts of the Pandemic:

By considering the social and moral responsibility towards Covid-19, in spite of the poor financial funding and lack of the resources, the Ministry of Higher Education left no stone unturned to take necessary measures in accordance with the circumstances. Among those measures are:



- Suspending studying at universities from 16 March 2020.
- Suspending all ceremonies or parties or any forms of celebration to prevent gatherings.
- Giving orders to universities and independent colleges to start on-line revisions about their courses. Dedicating on-line awareness campaigns about the symptoms of infection and the preventive measures.
- Keeping the situation under close evaluation based on outcomes of the Ministerial Committee to Combat Epidemics and the Ministry of Health, and the decisions of the Higher Committee of Registration.
- The ministry put all its facilities at the command of the Ministerial Committee to Combat Epidemics.
- Drafting a decree project to The Cabinet outlining the procedural measures to resume studying and fixing the date for examinations of the academic year 2019-2020. Scheduling the commencement of the academic year 2020-2021. The Cabinet agreed to the project and authorized the minister to take up all necessary measures.
- Monitoring a number of seminars to raise awareness about the pandemic, and benefitting from successful experiments of individuals and corporations. A number of papers were discussed, among which is a seminar at Al-Razi University. In that seminar 16 papers were discussed. They were divided into 6 dimensions: Humanitarian Response and Epidemiological Surveillance, clinical management for infected people and suspected cases, agents of enhancing the immune system against Covid-19, The hygienic social limitations and its impacts on the pandemic and information technology and response reinforcement. Some universities conducted training workshops on how to use "zoom" application for online teaching.
- The ministry issued a decree No. (37), dated 23 June, 2020 stating all procedural measures to be taken to resume teaching and conducting the final tests of the academic year 2019-2020 in both governmental as well as private universities and scheduling the commencement of the academic year 2020-2021. The decree stated an agreement to resume teaching and taking all preventive measures.
- Participating in the Emergency Project that was started by the Medicine Bank of Yemen in collaboration with the Ministry of Health. The project was supervised by the bank and meant to prevent the pandemic and minimize infection. The project targeted a number of governorates nationwide (Sana'a, Aden, Hodeida, Taiz, Ibb, Hajjah, Hadramaut, Sa'dah and Marib). This included a number of awareness activities aimed at telling of the urgent needs and the preventive measures to minimize death cases. The project lasted from Feb. through Sept. 2020 .
- Co-ordination and co-operation among education ministries (Higher Education, General Education and Polytechnic) to prepare a future plan to ensure a digital change to face the impacts of covid-19 and post-covid-19 era. Bidding educational institutions seek the help of the Center of Technology of Higher Education in getting advice and technical support in relation to how to use technology in all forms of education.
- Conducting scientific activities on better alternatives of teaching during the corona outbreak to ensure sustaining higher education in normal situations and during epidemics. Among those alternatives are Electronic Instructional System and online teaching. A number of activities were conducted by the ministry. They are listed below:
 - The First Electronic Teaching Conference in higher education institutions in 2020.
 - Betterment of internet services and reducing its cost for higher education body.
 - Suggestions and recommendations to face epidemics
 - Enhancing the institutional proficiency of Higher Education Sector, starting with the ministry and ending with colleges and research centers.



- Strengthening full community participation to protect higher education institutions against falling from prosperity due to crises and worldwide epidemics.
- Enhancing health care and starting health insurance system, paying salaries to the staff and protecting them against corona pandemic.
- Working in collaboration with the Ministry of Health and official media to ensure better health awareness.
- Implementing modern technology into practice in administrative and instructional processes and making digital platform for the purposes. Advancing digital literacy to teachers and students as well so as to ensure sustaining the educational process in times of crises and pandemics.

Higher Education and Aims of Sustainable Development:

2.3 The fourth aim of sustainable development: Advancement, gaps and choices (the role of higher education in improving the education system in general and the teaching profession) .

Education Sector and all its different institutions contribute to serving community as follows:

- Developing education in its different shades and forms

Table (4): Education and Training Parameters in the Republic of Yemen in 2013/2014

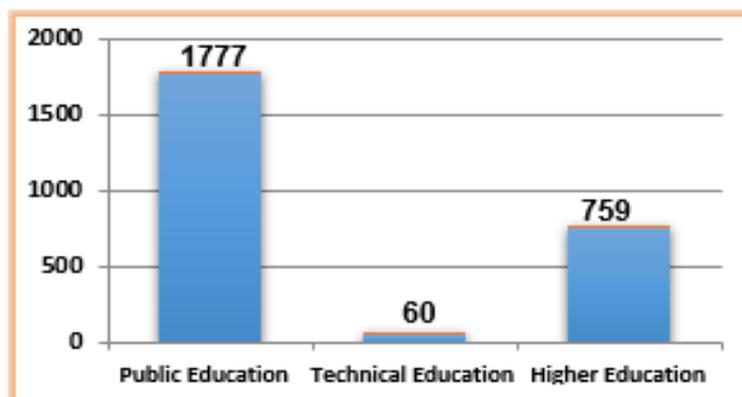
Education Stages	Admission	Graduation	Teaching and Training Staff
Public Education	6188449	170138	240482
Vocational Education	66005	19084	4996
Higher Education	310342	41155	10055
Total	6564796	230377	255533

- Preparation of researches and studies that will contribute in helping the community: Higher Education sector has participated in studying and analyzing issues related to education and training. The number of studies dedicated for this purpose is 2596 Master degree dissertations and Ph.D. theses from a total of 17133. This represents 15% of the achieved researches. Those researchers can be categorized into 1777 (69%) dedicated to general education, 60 researches (2%) to polytechnic education and 759 researches (29%) to higher education. The statistics covers the period until 2020.

Table (5): Distribution of Scientific Theses according to (Education Sector)

Education Sector	No.	Percentage
Public Education	1777	69%
Technical Education	60	2%
Higher Education	759	29%
Total	2596	100%

Figure (1): Distribution of Scientific Theses in Education and Training Section in Yemen





Promoting Research Abilities of Higher Education Institutions

Higher Education and Scientific Research Ministry has been able to prepare several reforms, projects and programs of which these are the most significant ones:

- Activating ministry scientific research sector and appointing qualified key staff to occupy several jobs.
- Holding in check research centers and issuing a regulation to organize their work.
- Holding in check Yemeni scientific journals and issuing a regulation to organize their work, ensuring its quality and accreditation and preparing for launching a digital platform for Yemeni scientific journals in the middle of 2022 which count more than 42 journals .
- Implementation of a number of workshops about scientific publishing and universities global classification .
- Preparing a bibliography database for Yemeni scientific theses (Master and Doctorate) for a half of a century (1970 – 2020) which is the first Arabic bibliography containing data of (17188) theses .
- Holding more than 30 public scientific conferences by ministry and universities during 2021 and joining the higher education in more than (20) in theory international Arabic scientific conferences during 2021 .
- Launching higher education center for scientific conferences from which three editions along with several prints were issued .
- Forming committees to update higher education and scientific research regulations consisting with international, Arabic and domestic up-to-date developments .
- Conducting assessments for higher studies programs in Yemeni universities and launching new study programs according to the development requirements and business market. Expansion yet remains going on most universities .

Table (6): Distribution of Higher Studies Programs for the Academic year 2018/2019

Universities	Program	No.	Total	Percentage %
Governmental	Diploma	19	209	80%
	Master	149		
	Doctorate	41		
Private	Diploma	-	52	20%
	Master	52		
	Doctorate	-		
Total			261	100%

Table (7): Distribution of Students Registered in Higher Studies Programs for the year 2018/2019

Universities	Program	Gender	Total	No.	Percentage %	
Governmental	Diploma	Males	322	232	100%	
		Females		90		
	Master	Males	4008	2.685	100%	
		Females		1.323		
	Doctorate	Males	354	253	100%	
		Females		101		
Private	Diploma	Males		-	100%	
		Females		-		
	Master	Males		481	100%	
		Females		142		
	Doctorate	Males		-	100%	
		Females		-		
	Total				5.307	100%

(The above statistical result does not include some universities and colleges such as Ade, Hadramaut, Lahij, Marib, and Al-Maharah)



- Promoting Higher Education Productivity and Scientific Publishing:

The total of scientific productivity is (26486) items, including (17188) scientific theses, covering (65%), along with (9298) published researches covering (35%). Note that all the scientific theses are the sum of what have been submitted to the national center library for information from 1999 till 2020 in different scientific fields. (Quickly compared, increasing at the size of scientific productivity for scientific theses has been noticed reaching (10000) theses in 2020 compared to 2013 with an annual average of (1000) theses a year.

Table (8): Scientific Productivity of Higher Education

Sr.	Type	No.	Percentage %
1	Scientific Theses	17188	65%
2	Published Studies and Researches	9298	35%
Total		26486	100%

Table (9): Distribution of University Theses and Dissertations according to the Scientific Degree

Sr.	Scientific Degree	No.	Percentage %
1	Master	12.24	70%
2	Doctorate	4554	26%
3	Undefined	610	4%
Total		17188	100%

Table (10): Number of Scientific Theses Submitted to the National Information Center according to Research Area / Specialization until 2020

No.	Research Area / Specialization	Until 2020
1	Medicine and Health Sciences	2408
2	Education	2026
3	Languages and Arts	1958
4	Religion	1379
5	Science	1652
6	Law	1062
7	Engineering	2361
8	Information	745
9	Agriculture	729
10	History	519
11	Economics	378
12	Psychology	366
13	Political Sciences	354
14	Accountancy	296
15	Geography	363
16	Sociology	225
17	Media	213
18	Other	154
Total		17188



- Local Scientific Publishing in Yemeni Peer-Reviewed Journals:

Yemeni universities have more than (42) scientific journals of which (19) journals have the International Standard Serial Number (ISSN).

Table (11): Researchers' Local Scientific Publication in Yemeni Scientific Journals until December 2019

Description	No. of Researchers
Number of Journals	42
Number of Issues	262
Number of Researches	1,249
Number of Yemeni Researchers	1011
Number of Non-Yemeni Researchers	238
Number of the Journals with ISSN	19

Considering this number of Yemeni scientific journals, it appears to be much less if compared with the number of higher education institutions which are more than (86) private and public universities. This indicates that there are still some universities that have not even issued any journals till today while others have journals that do not include all colleges of them which shows clear deficit concerning universities performance of their research and scientific theses negatively affecting the process of productivity and scientific publishing in Yemen.

- International Scientific Publishing SCOPUS-ISI

Yemen got the 17th place among Arabs with (2.235) researches which is less than (1%) out of the sum of internationally - published Arabic research outputs in ISI, which are about (410.549) theses distributed over (22) Arab countries (from 2008 to 2018), as shown in table 12.

Table (12): ISI Arabic Scientific Publishing Ranking for the Period (2008 – 2018)

Rank	Country	No. of Researches	Percentage %
1.	Saudi Arabia	112,565	25%
2.	Egypt	106,891	24%
3.	Tunisia	48,417	11%
4.	Algeria	37,137	8%
5.	Morocco	26,914	6%
6.	United Arab Emirates	25,360	6%
7.	Jordan	16,890	4%
8.	Qatar	16,328	4%
9.	Lebanon	15,087	3%
10.	Iraq	12,119	3%
11.	Kuwait	9,294	2%
12.	Oman	7,793	2%
13.	Sudan	4,379	1%
14.	Palestine	3,786	1%
15.	Syria	3,251	1%
16.	Libya	2,902	1%
17.	Yemen	2,235	0%
18.	Bahrain	2,224	0%
19.	Mauritania	300	0%
20.	Djibouti	118	0%
21.	Somalia	74	0%
22.	Comoros	68	0%
Total Published Arabic Papers		410,549	100%



Table (13): Distribution of Scientific Productivity and Publishing Published in ISI Database for the Period (2008 – 2018)

Sr.	Most Published Area	No. of Area Papers	Most Publishing Institutions	No. of Institution Papers
1.	Materials Science	141	Sana'a University	770
2.	Electrical and Electronics Engineering	134	Taiz University	331
3.	Geology	126	Ibb University	244
4.	Applied Physics	117	Dhamar University	182
5.	Condensed Matter Physics	94	Aden University	143
6.	Other	1.623	Other	565
Total		2.235	-	2,235

The SCOPUS database scientific publishing is more than (5814) researches until May 2020.

Table (14): Distribution of Scientific Productivity and Publishing according to SCOPUS Database until May 2020

Sr.	University	No. of Researches
1.	Sana'a	1850
2.	Taiz	662
3.	Ibb	485
4.	Dhamar	405
5.	Aden	352
6.	Science and Technology – Hadramaut	329
7.	Hodeida	234
8.	Science and Technology	215
9.	Other	---
10.	Queen Arwa	2
Total		5814

The Third Message of Higher Education Institutions: Adopting global points of view for community services and local practices

Despite of the bankruptcy of general budget and the poor higher education revenues, the community educational service was never canceled nor did the universities stop providing it save the period of the suspending of study during Corona –Covid-19 pandemic. The higher education institutions are still trying to provide a number of community activities according to potentials and resources available. Some of these community activities are:

Table (15): Distribution of Community Activities of Yemeni Universities for the year 2018/2019

Axis	Variable	Governmental universities	Private universities	Total
Scientific and Community Events and Activities	Conferences	4	14	1161
	Workshops	166	106	
	Seminars	44	70	
	Training Courses	23	99	
	Other	167	268	



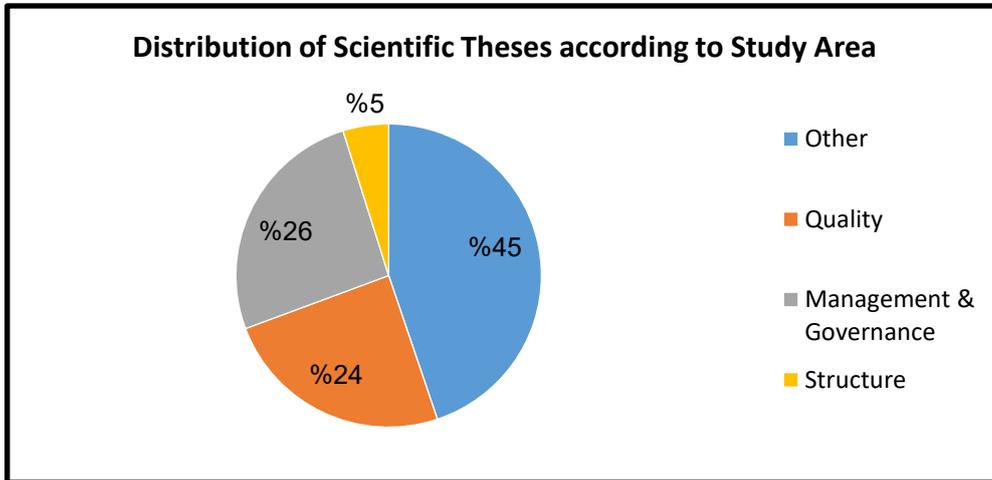
Governance in Higher Education:

To know how much higher education institutions has applied the governance principle, theses and dissertations concerning higher educational in Republic of Yemen (1995-2017) which are (290) theses have been analyzed and evaluated, (75) theses of which were about leadership, management and governance of higher education covering (26%) VS. (71%) for quality, with a percentage of (24%).

Table (16): Size of Studies Related to Governance in Higher Education

Policies and Study Areas	No.	Percentage	Total
Management and Governance	75	26%	260
Higher education Structure	14	5%	
Higher Education Quality	71	24%	
Other Study Areas	130	45%	

Figure (2): Size of Studies Related to Governance in Higher Education



Studies results concerning management and governance of higher education reveals the following:

- Poor higher education institutions performance caused by deficits in institutional performance components .
- Too low application by the Yemeni universities for governance principle together with variance among universities concerning managerial leadership, decision making, managerial and financial auditing, integrity, transparency, accountability and efficient participation .
- Degradation of partnership level between Yemeni universities and business market institutions .
- Absence of training centers concerning leadership and governance of higher education institutions .

Significant Recommendations in the Field of Governance of Higher Education:

- Updating, in one hand, the higher education rules and regulations. On the other hand, Civil and Finance Ministries rules and regulations in order to keep up with technological and scientific advances, regional and local economic, social and political changes .
- Restructuring higher education as it fits with the development requirements and business market as well as applying governance principle and develop an awareness as to the concepts of accountability and transparency of ministry and universities .



- Coming up with suitable mechanisms for sorting and selecting future leaders of academics and managers in the light of clear principles such as competition, integrity, qualification and efficiency then training them constantly .
- The necessity of the commitment of higher education institutions higher administration of constant training and qualifying as well as using the suggested programs and establishing special centers for training managerial and academic leaders of universities .
- Activating the role of control and auditing and disposing of selfish-focused centralism in making decisions .
- Promoting partnership between higher education institutions and private and public sectors, supportive departments and local and international organizations for that can develop the higher education sector and the scientific research .
- Elevating efficiency of higher education institutions and perfectly exploiting their available resources, preventing reasons of waste, straightening functional performance and increasing the capacities of universities and colleges to make availability and quality .

Quality and Academic Accreditation in Higher Education

Academic quality and accreditation were not a national concern in the first two decades of higher education in Yemen, but with the expansion of higher education institutions, the increase in the number of students enrolled in public universities, and the lack of resources, higher education faced many challenges. In addition, the country went through exceptional political and economic circumstances that affected the level of quality of higher education. Despite all the circumstances that Yemen has been through and the successive challenges it faces, the Ministry of Higher Education and Scientific Research has sensed early on the importance of quality education. The Ministry began quality assurance activities in 1998, in cooperation with the World Bank, to prepare terms of reference for the accreditation system and to ensure the quality of higher education in Yemen.

Since 2000, the ministry has started to spread the culture of quality assurance and academic accreditation in Yemeni higher education institutions, in cooperation with several international organizations. At the beginning of 2002, the Ministry searched for international bodies to help develop the system of accreditation and quality assurance in higher education. The Ministry launched practical activities to implement quality assurance in 2005, when a number of teams were formed, including specialists from the Arab world, to evaluate private higher education institutions. A number of academic programs were evaluated in cooperation with the United Nations Development Program, and these evaluations helped in identifying the strengths and aspects that need to be improved in these academic programs.

However, effective efforts in the field of quality and academic accreditation began with the preparation of the national strategy for the development of higher education and scientific research 2006-2010, whose main objectives were to establish an entity concerned with this task. This strategic direction culminated in the issuance of the republican decision in 2009 to establish the council and define its goals and tasks, followed by the Prime Minister's decision in March of 2010 to name the council's members. In the summer of the same year, a draft system, regulations, draft standards and guide for academic accreditation were completed and prepared. This culminated in June 2012 with the issuance of Republican Resolution No. (66) naming the Speaker of the Council.



The Council has prepared a document of the frame of reference that defines the appropriate approach to ensuring quality and academic accreditation and the mechanism for its implementation in Yemen, guided by international and Arab experiences, taking into account the conditions of the emergence of higher education in Yemen, the stages of its development and the factors surrounding it. With this document, the Council laid the important foundations for improving the quality of Yemeni higher education institutions.

During the year 2012 AD, the Council began attracting academic and administrative cadres and holding special workshops, which resulted in defining the foundational strategic directions: vision, mission, values and objectives of the Council, developing a vision for the form of its organizational structure, preparing its internal regulations, preparing the procedural framework, guides and guiding models, and defining procedures and possible means to spread the culture of quality in Yemeni universities,

The council also worked, in coordination with the ministry and public and private universities, to hold several workshops to come up with national quality standards for general accreditation at the (institution) level and special accreditation standards at the (programs) level, adapting them in accordance with the laws and regulations in force and dividing them into stages in line with the conditions and environment of Yemen and the conditions of universities. The standards included the two levels, and each level has its own requirements.

In 2012 and 2013, the Council sought to spread the culture of quality by holding quality weeks in universities and training more than 200 faculty members from various universities internally and externally to take on the task of self-evaluation. The Council also supervised the establishment of quality units in all public and private universities and the training of workers In which.

The Council has prepared a Incremental Approach to bring higher education institutions to achieving standards of quality assurance and academic accreditation, called the "Incremental Approach." The Incremental Approach is based on the principle of gradualism in raising the ceiling of quality assurance and academic accreditation requirements, as the experience of Yemeni higher education institutions matured. This entrance is in two stages, with four levels of academic accreditation:

The first stage: Quality Assurance: It takes place in two levels:

Beginning level: The higher education institution fulfills the requirements of the Law No. 13 of 2005 Establishing Universities, Higher Institutes and Private Colleges and its executive regulations for the year 2007.

Foundation level, which represents the ability of a higher education institution to build an effective internal quality system, in accordance with the requirements of the Council for Academic Accreditation and Quality Assurance of Higher Education.

The second stage: Academic accreditation: It takes place in two levels:

A level of achievement, Accomplished, which represents the global levels of institutional accreditation, where the institution applies the general standards for public accreditation approved by the council.

Distinguished: It represents the global levels of Professional/Program Accreditation, in which the institution applies the standards of each academic program like its peers accredited in the world. And set a time frame



of two years to achieve each level of accreditation, starting in 2013. Then the council prepared a strategic plan 2013-2017 to implement this intonation approach in Yemen,

However, higher education institutions and the Council itself faced many difficulties and challenges that prevented the achievement of the strategic goals. Higher education institutions have been unable to implement this Incremental Approach, as the documents of the Ministry of Higher Education and the Academic Accreditation Council indicate that no university, college or academic program has been able to Achieving the standards of the first level of accreditation levels, which was supposed to be achieved within two years from the beginning of the implementation of this approach, i.e. during the years 2014/2015. Therefore, the Council resolved to review these standards, as the third and fourth levels were merged into one level, so the academic accreditation became three levels are:

Beginning level: The educational institution fulfills the requirements of minimum quality standards in its academic, administrative, financial and financial aspects.

Foundation level: It is represented in the educational institution having an effective internal quality system in accordance with the requirements of the Council.

Accomplished level of achievement: The academic program achieves the international standards of Program Accreditation Professional

And during the period from 2017 - 2020 AD, I found many imbalances and obstacles, most notably:

- Not completing the organizational structure and the normative structure.
- Migration of most of the cadres who were trained and qualified as a national house of expertise abroad.
- The exit of Yemeni universities from the international classification systems during the past years, the latest of which is the classifications of the year 2020, and this is a very dangerous matter and poses a great threat to the reputation of our universities, their qualifications and their outputs if they continue in this state

The approved budget and external support for the Council ceased in the year 2015, and its development activities stopped. The Council's inability to fulfill its financial obligations and pay contributions to international organizations and federations concerned with quality and academic accreditation, most notably the International Federation of Medical Education's fees (61 thousand dollars), and its accumulation for several years,

The leadership of the Ministry has made great efforts to activate the role of the Council and enable it to carry out its tasks in the evaluation process for universities, apply quality standards and academic accreditation, and keep abreast of global developments in higher education in general, and benefit from them in this direction. Some universities to accomplish the following issues:

- Approving the council's executive plan for quality and academic accreditation.
- Updating the controls and standards for undergraduate and graduate programs.
- Preparing the unified National Academic Reference Standards (NARS) for (16) programs, issuing a ministerial decree on them and circulating them to universities to re-describe the programs and courses in light of them.



- Preparing the accreditation criteria for the Human Medicine Program (WFME), its guideline, issuing Ministerial Resolution No. (1) for the year 2020 AD regarding it, and circulating it to all universities studying this program to start implementing it.
- Implementation of several scientific workshop and events related to spreading the culture of quality and accreditation in higher education institutions

During the years 2020-2021, the Council carried out many projects that were included in the priorities of its implementation plan, the most prominent of which was the amendment of the national academic accreditation standards. The Council recently made another review of these standards, taking into account the following justifications:

The difficulty of the developmental approach, its multiple stages and levels, and the high level of its indicators,

- Weak capabilities of institutions in providing the requirements for implementing this approach at its various levels.
- There are many Arab and international experiences that adopt only two levels of accreditation: the first: concerned with national accreditation, and the second: represented by international accreditation.

Therefore, the Incremental Approach was subject to review and development through discussion sessions in which a group of quality experts and academic development participated at the national level, and in light of the guidance of the most prominent Arab and international experiences, and these efforts 2021 resulted in the crystallization of the academic accreditation standards (program) document in eight main standards, each of which includes A number of sub-standards that are distributed in performance indicators that represent the minimum level of good academic practices in higher education institutions, which qualifies the program for specialized accreditation at the national level.

As part of this amendment, the Council recently (2022) prepared a document of national institutional accreditation standards, which consists of nine main criteria, each of which includes a number of sub-criteria that are distributed in performance indicators that represent the minimum level of good academic practices in higher education institutions, which qualifies the institution For general accreditation at the national level

The Council held a scientific workshop to discuss and approve the most appropriate alternative for applying academic accreditation standards in Yemen. Three questions were raised in the workshop about the most appropriate alternative to implementing academic accreditation standards in Yemen:

- 1 Is it appropriate for Yemen to go on both tracks, namely, institutional (public) accreditation and programmatic (private) accreditation, at the same time?
- 2 Is it appropriate to start with program accreditation criteria, while setting minimum conditions for institutional accreditation that include a mechanism for gradual improvement?
- 3 Is it appropriate to start with institutional accreditation standards, then program accreditation, which is the ideal solution, if its requirements are met?



The workshop concluded that the second alternative is the most realistic and easiest procedural to start applying the academic accreditation standards in Yemen at the present time.

Given the complexity of higher education institutions and the difficulty of applying these standards at the level of universities as a whole, the Council considered it logical to focus at the present time on the application of (private) program accreditation standards. This does not prevent universities from applying for institutional accreditation, if they find that they are ready for institutional evaluation, and if they convince the Council to do so through sufficient documents.

This is based on the current reality of educational institutions in Yemen, and guided by the experiences of some countries that preceded Yemen in this field, such as: the Philippines, Malaysia, India and South Africa, and others, which found that it is better to start applying quality standards and academic accreditation to academic programs; Then comes accreditation at the institutional level.

In translation of the Council's efforts in assisting universities to obtain academic accreditation, many universities have applied to sign agreements with the Council to start the procedures for obtaining national academic, programmatic and institutional accreditation, in preparation for progressing to obtaining global accreditation.

Despite the many challenges that the Council is currently facing, the most prominent challenge facing it now is to enable higher education institutions to obtain national academic accreditation in preparation for obtaining international merit, especially universities with medical specialties, a challenge facing the Council itself, as it needs accreditation Some academic programs in preparation for obtaining international recognition by the Council itself.

We are approaching the year 2023 when the World Federation of Medical Education (WFME) announced that individuals applying for the ECFMG certification must be a student or graduate of a medical school must be accredited by a national accrediting board officially recognized by the World Federation of Medical Education (WFME). Therefore, the Council set this challenge as the central goal of the current strategy, not to mention that the most prominent goals of the National Vision 2030 in the education axis, which is the need to reach five (5) Yemeni universities to be among the top one hundred (100) universities at the Arab level by 2025 represents an additional challenge for the Council.

The Council believes that this national responsibility is to obtain national and international merit, especially in the medical field. Rather, it is a national responsibility of great importance that can only be achieved through a strategic plan.

Therefore, the Council was keen to prepare its development strategy 2022-2026, using a scientific methodology that ensures scientific accuracy in diagnosing the current situation of the Council and logicity in drawing future directions for its development, and realistic in the requirements for implementing this strategy, through identifying the institutional self within the framework of its (national) environmental contexts. and international). And drawing the future identity, in order to ensure the realization of this national responsibility in achieving national and international merit.

The Council is aware that this strategy needs executive guarantees, at the forefront of which are the provision of political will and institutional leadership in support of this strategic direction towards academic

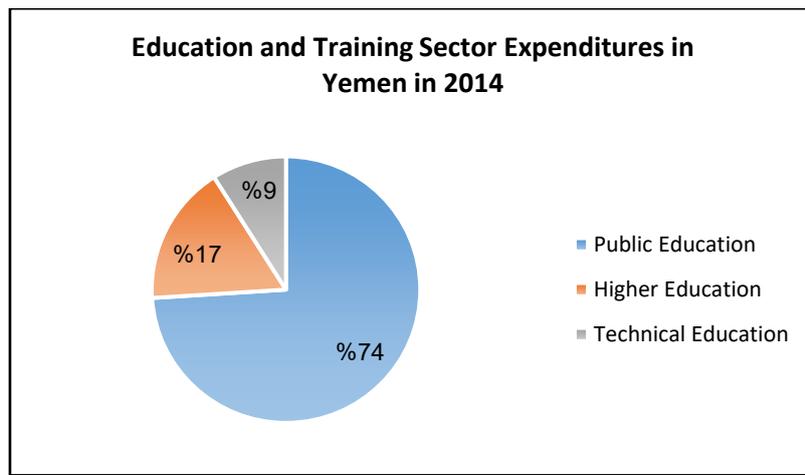


accreditation, in order to ensure the provision of requirements for implementing this strategy and transforming it into operational paths in the reality of practical practices.

Higher Education Funding

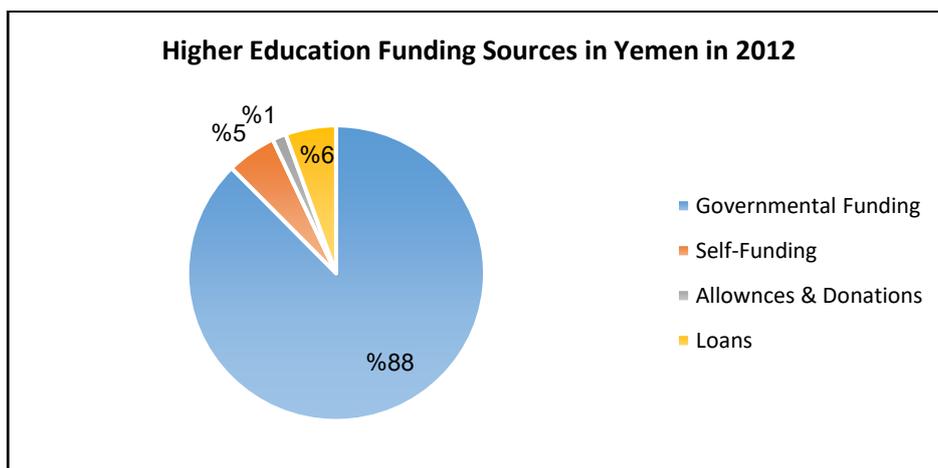
It is clear from Chart (3) that public education has taken over 74% of total of state expenses over education and training, then followed next by higher education sector with 17% and last technical education sector with 9%.

Figure (3): Chart of Education and Training Sector Expenditures in Yemen in 2014



Yemeni Higher Education can be described as poor and lacking resources, it can be divided into four types: 88% governmental funding, 6% self-funding, 5% loans and last 1% allowances and donations.

Figure (4): Chart of Higher Education Funding Sources in Yemen in 2012





- Governmental Funding:

Governmental funding can be described as:

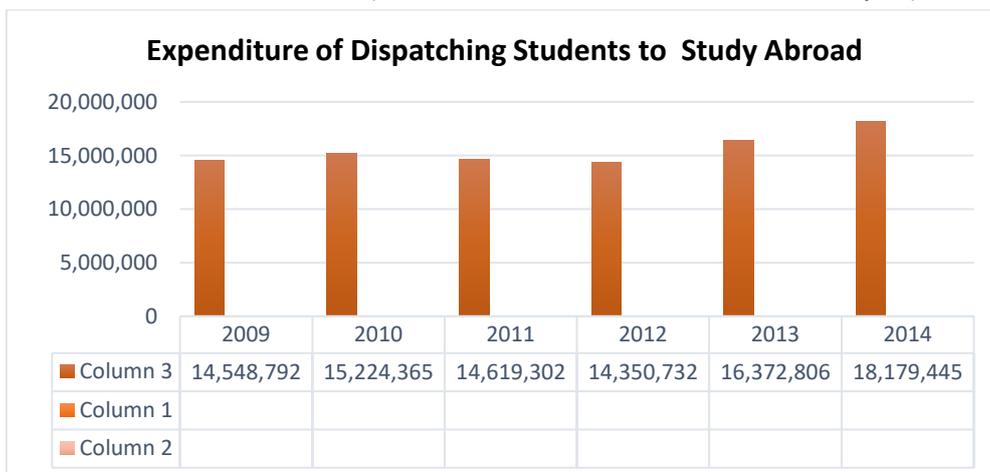
1. Increasing general expenses over higher education and scientific research from about (47.6) billions YRs in 2008 which is two hundred and twelve millions and six hundred and sixty nine thousand dollars to about (75.8) billions YRs in 2014 equal to three hundred and twelve million dollars, such amount of expenses in such period of time forms an average of (15.35%) of the total amount of expenses over education and training sector, (2.34%) of state total public expenses and (0.81%) total of domestic outcome .
2. Expenses of wages and the sorts formed (84%) of current expenses and (12%) for operational expenses out of total of current expenses of public universities and Ministry of Higher Education which reflects the deficit in the process of education and learning.

Table (17): Development of General Expenditure on Higher Education and the Like during the period 2005 - 2013

Financial Year	Government General Expenditure	Expenditure on Education and Training Sector	Growth %	Expenditure on Higher Education	Growth %	Share of Higher Education in Expenditure	
						For Government %	Education & Training %
2005	1,194,427	173,262	16.12	29,240	14.83	2.45	16.88
2006	1,420,621	195,233	12.68	33,480	14.50	2.36	17.15
2007	1,754,782	253,155	29.67	43,118	28.79	2.46	17.03
2008	2,248,166	293,863	16.08	47,647	10.50	2.12	16.21
2009	1,847,960	303,585	3.31	50,725	6.46	2.74	16.71
2010	2,115,428	300,188	-1.12	50,087	-1.26	2.37	16.69
2011	2,097,353	336,387	12.06	47,180	-5.80	2.25	14.03
2012	2,813,835	376,583	11.95	55,058	16.70	1.96	14.62
2013	2,766,999	422,269	12.13	68,698	24.77	2.48	16.27
Average	-	-	12.54	-	12.17	2.35	16.18

Regarding expenses on higher studies domestically, there is no statics revealing what is actually being spent on scientific research by universities, as per domestic scientific conferences, they are limitedly held despite of the law of Higher Education No. (13) for 2010 stating that universities should assign (5%) of their resources for scientific research, they never abide to meet those standards.

Figure (5): Chart of Total Expenditure on Sponsored Students Studying Abroad for the years 2009 – 2014 (The amounts below are in thousands of riyals)





- Self-Funding for Higher Education Institutions:

Types of self-funding are :

- Students fees at the time of registration and admission, which are called acceptance and coordination fees .
- Paralleled education fees.
- Study fees of the special self-expenses scheme.
- Fees of International students
- Higher studies programs fees .
- Fees of training courses and programs along with continuing education programs .
- Fees of technical and scientific services and consultancy provided for both public and private sectors, institutions and individuals .
- Revenues of inventions and innovations .
- Fees of students services .
- Rental revenues of universities facilities.

- Funding by Donations and Gifts for Higher Education Institutions:

Some supportive departments and countries contributed in funding some of Higher Education projects in Yemen which are more than (16) projects distributed between ministry and some Yemeni universities. Some of those supportive departments are such as: -not exclusively- (Kuwaiti Fund- International Bank- Netherlands - Japan - Islamic Development Bank - China - Germany and etc.

- Developmental Projects Foreign- Funded:

Netherlands has contributed through Tuffic organization in funding 13 projects since 2004 till 2011 with an average of a million and a half Euros for most of the projects. China as well contributed in funding information technology network as there are also facilitated donations and loans directly gotten by some universities from the donating departments for most of those projects were in the endeavor of improving infrastructures and institutional capability. Such donating departments for such projects are such as: (Development Islamic Bank, Arab Fund, Kuwaiti Fund). Since 2014, Higher Education Sector has never had any new foreign-funded projects.

Table (18): Some Development Projects Funded by Foreign Organizations (2004 – 2011)

No.	Project Name	Funding Body	Donation Value	Currency
1.	Higher Education and Scientific Research Development Project	World Bank	13,000,000	US Dollar
2.	Higher Education Quality Improvement Project	Japan	13,000,000	US Dollar
3.	Higher Education and Scientific Research Abilities Reinforcement Project	Netherlands	2,500,000	Euro
4.	Information Center Technology (ICT) in Higher Education Project	China	4,000,000	US Dollar
5.	Faculty of Medicine Repair and Development Project at Hadramaut University	Netherlands	1.500,000	Euro
6.	Institutional Structure Enhancement Project for Water and Environment Center at Sana'a University (Higher Studies Program at Water and Environment Center)	Netherlands	1.500,000	Euro
7.	Institutional Structure Enhancement for Researches and Training Center – Aden University	Netherlands	1.500,000	Euro
8.	Business Administration Master Program at Faculty of Commerce – Sana'a University	Netherlands	1.500,000	Euro
9.	Executive Master of Public Administration – Faculty of Commerce, Sana'a University	Netherlands	1.500,000	Euro
10.	Basic Sciences Teaching Development Project in Faculties of Education and science at Sana'a, Dhamar, and Hodeida Universities	Netherlands	1.500,000	Euro



- Challenges Facing Yemeni Higher Education Institutions Funding:

1. Backing up to old-fashioned methods in setting general budget for higher education institutions (as in doing it for state general budget) which dictate to increase allowances in a random rate determined by previous year rate .
2. Wages and salaries expenses taken over current expense on the expense of operational and maintenance expenses being poorly-funded in universities and colleges .
3. Limitation of foreign funding in the form of donations and loans of which some are with limitedly-conditioned terms .
4. The poor participation of private sector in funding Higher Education except for some single cases of business men contributions .
5. Too much financially-wasted expenses for general allowances for due to the rapid outbreak of financial and managerial corruption with the absence of proper strategic planning .
6. Scattered efforts of Yemeni conflicting governments where general budget goes for the benefit of military and security operations leading to the international donations and aids going to the benefit of emergency situations, rescuing, sheltering, providing and human response .
7. Treasury Ministry domination over Higher Education funding and the absence of awareness in the backstage shot callers about the importance of universities existence as well as the absence of financial independency of higher education institutions .

Higher Education and the Companies Social Responsibility (CSR)

Yemen was never behind Arabic exerted efforts in such a field, rather ahead and a leader, she has exerted the first initiated efforts forming then a reviving basic ground for developing social responsibility. She has held several conferences, expanded meetings, events and workshops with the participation of some Arab countries in Sana'a, Aden and Taiz during (2008-2021) coming up with several recommendations aiming at promoting social responsibility in Yemen. In this context, Higher Education along with Commerce and Industry Ministries and some institutions in both public and private sectors have contributed in raising awareness of social responsibility of which we can mention some:

- The first conference titled " Companies Social Responsibility " Movenpick Hotel- Sana'a, during 29-30 October 2008 .
- The second conference titled " Companies and Social Responsibility " Movenpick Hotel - Sana'a, during 24-25 June 2009 .
- The training program about social responsibility titled " Founding-Managing - Measuring" in Mercure Hotel- Aden on May 4,2010 .
- The third conference titled " Business institutions and Companies ... Everlasting Development, Aden University, during 5-6 May 2010 .
- The fourth conference titled " The Best Regional Applications Practices of Social Responsibility " Sana'a, during 8-9 June 2011 .
- The expanded meeting for social responsibility in Sana'a on July 14, 2012 .
- Conference titled " Companies Citizenship " organized by Yemeni Businessmen Club, Taiz on June 7, 2014 .
- Universal Day Event for Community Responsibility on September 25,2019 at Al-Razi University-Sana'a .
- Organizing more than 30 scientific conferences in several public and private universities during 2021.
- Participation of some Yemeni researchers concerned with the field of social responsibility in some conferences and international and Arabic scientific seminars relating to pre and post Corona pandemic .



- Participating in founding the social responsibility reward launched by Industry Ministry as well as setting its standards and selecting a Higher Education representative at the Higher Committee Membership for the social responsibility award .
- On September 25, 2019, Higher Education and Scientific Research Ministry coordinated with Commerce and Industry Ministries along with a number of institutions, companies for the reviviscence of the event of the Social Responsibility Universal Day in Rehab, Al-Razi University. The results and recommendations of that event stressed on the necessity of activating the reward of social responsibility and the law No.13 for 2021 issued the forming of a committee for preparing the project of founding and organizing the social responsibility reward then the reward was officially announced on February 8, 2022 in Sana'a .

Present time Challenges of Higher Education:

- Non-payment of salaries and operation fundings which resulted in negative impacts on academic processes as well the administrative ones.
- Quality challenges, especially challenges in relation to students of medicine who look forward to getting an ECFMG certificate and approval from a national accreditation board recognized by the WFME.
- Mass emigration of the Yemeni academicians due to non-payment of salaries.
- Technical weaknesses in applying modern technology in higher education institutes. Universities find it difficult to apply internet-based teaching adequately.
- Problems of Higher Education have been multiplied due the ongoing civil war and the negative impacts of covid-19 pandemic. This resulted in infection and death cases among university personnel because of the lack of sufficient hygienic care.
- No orientations towards activating scientific research in our country. No funding of whatever kind. The failure to inaugurate a National Research Fund.
- Some international organizations have left the country. They were active in funding higher education.
- The negative impacts of the war and siege on students, employees and educational administration.
- The low level of skills and training courses in administrative as well as educational domains.
- Lack of adequate awareness about qualifications of higher education according to UNESCO Agreement.
- The low level of higher education institutions governance as a part of the governance of the whole country.
- The low level of partnership with the governmental sector as well as the private sector in the field of higher education.
- The low level of published scientific researches and the low number of local scientific journals



General Recommendations and Suggestions:

- Funding higher education and ensuring its sustainability in normal situations as well as during wars, crises and pandemics and paying the salaries of the teaching staff.
- Registering the Yemen Academic Accreditation Authority in the WFME and Colleges of medicine to attain recognition and national accreditation.
- Solving the problems of academicians in a way that ensures they continue doing their jobs and not dropping out due to non-payment of salaries.
- Raising the technological proficiency of higher education personnel, making internet service faster and better and improving electronic and online education.
- Protecting higher education personnel against the negative impacts of wars and pandemics to maintain affected buildings and facilities and make them available in peace as well as in war times.
- Increase funding higher education, securing the funding resources and sustaining it. Establishing a Scientific Research Fund in partnership between governmental and private sectors.
- Working hard to rehabilitate development projects in the field of higher education funded by donating governments and international organizations.
- Establishing Capacity Building Centers to train academicians, administrative personnel and students.
- Coordinating efforts with the UNESCO to ensure that higher education certificates are recognized.
- Applying governance principles in ministries and universities.
- Activating partnership with the governmental and private sector in higher education.
- Establishing centers of distinguished research and publishing centers in universities and encouraging local and international publishing, and raising the standards of publishing journals so as to be among renown databases.
- Updating academic programs so as to go hand in hand with development plans, rebuilding the nation, labor market and the international sustainable development.
- Stopping the war and siege on Yemen, sustaining peace and rebuilding the nation and recompensating the financial and psychological harms of higher education personnel. Ensuring decent life to them and protecting them against wars and pandemics.



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Republic of Yemen

Ministry of Higher Education & Scientific Research

Scientific Research and Higher Studies Sector



Date:

Attachments:

No.:

Appendix ()
Yemeni University Chart