Carbon footprint Report 2019

Environment and Sustainability Section

Mays Abdalla, Environmental and Sustainability Specialist

Madawi Al-Shafi, Environmental and Sustainability Section Head

REPORT CONTENT

We are honoured to reveal the first copy of the QU Carbon Footprint Report for the year 2019. This report covers the period from 2016 – 2019 with 2016 being the baseline year.

As this is the first time for Qatar University to prepare this report, you might find some areas excluded from the calculation process, which was done intentionally to simplify the first stage, though, we are planning to include these areas in the coming years.

WHO WE ARE?

The Sustainability and Environmental Section comes directly under the Facilities and General Services Department - Administration and Financial Affairs. We are here to design and build practical solutions and to assure that our operations are performed in a sustainable way. Conserving our natural resources, planning to decrease our campus carbon footprint, managing wastes, promoting recycling, and increasing the community awareness are all under our scope.

We are also monitoring the project performance to ensure that all operational work are done in environmentally friendly way.

REACH US

We are here to hear from you,

Environment and Sustainability Section: Sustainability@qu.edu.edu

MESSAGE FROM THE DIRECTOR

"The State shall preserve the environment and its natural balance in order to achieve comprehensive and sustainable development for all generations."
Permanent Constitution

Following what stated in our state constitution and the fourth pillar in Qatar's vision toward 2030 – Environmental Development -, we at Qatar University affirm our endeavour toward achieving the required balance between the development needs and protecting the environment, and this could not be done without the cooperation of all sectors in campus.

The sustainability model of Qatar University represents an opportunity to embody a more sustainable society by working on the application of various relevant research and academic outputs. This will enable the University to provide Qatari society with the nation's largest and oldest national businesses, which will equip qualified personnel to lead sustainable development through their future positions in various sectors of institutions and society.

With the global warming and climate change issues arising every day, it is very important to understand the environment around us and predict our contribution as Qatar University towards global climate change.

Thus, the Environment and Sustainability Section at Qatar University started the QU carbon footprint calculation, and summarized all the measurements done in this report, which will enable us setting targets, and building strategies and programs.

Together for a green and sustainable campus,

Eng. Mai Hamad Fetais
Director of Facilities and General Services Department , Qatar University

September 2020

ACKNOWLEDGMENT

In the very outset, we would like to express our gratitude to all people who put their efforts in this project directly or indirectly; including all the professional engineers, the administrative people, the operators, and the student trainees or part-time student employees provided by the university.

Our special thanks goes to Eng. Mai Hamad Fetais the Director of Facilities and General Services Department for her endless support and professional assistance given through this journey.

We also would like to thank the Institutional Research and Analytic Department represented by Ms. Fatima Shaaban Ali for providing us with the institutional data-population part, and the Finance Department represented by Ms. Mariam A-Shaabi for providing us with the budget data spent in all three sectors (operational, research, and energy budget).

Thanks to the Civil, Electrical, Mechanical, Agricultural, and Transportation teams from the Facilities and General Services Department for their professional and skilful help in calculating the core data required in this work.

Our sincere thanks goes to Ms. Madawi Al-Shafi, the Environment and Sustainability Section Head, for her continuous and dedicated support to accomplish this work.

We believe that without your efforts, this work would not have been possible.

Carbon Footprint Calculation Team,
Environmental and Sustainability Section – FGSD,
Qatar University

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Glossary

The following terms and abbreviations may be used in this report shall mean:

QU:	Qatar University, State of Qatar
KAHRAMAA:	Ministry of Electricity & Water, Doha, State of Qatar
GHGs:	Greenhouse Gases
GHG Protocol	A global standard for measuring, managing, and reporting greenhouse gas emissions.
WRI:	World Resources Institute
WBCSD:	World Business Council for Sustainable Development
Gha	Global Hectares
SIMAP	Sustainability Indicator Management and Analysis Platform
U.S	United States
MTCDE	Metric tons of carbon dioxide equivalent

01 INTRODUCTION

1.1. Qatar and the Climate Challenge

Qatar, the world's leading exporter of liquefied natural gas has the second globally ecological footprint of around 14.4 gha/person as per the Global Footprint Network, 2016. The ecological footprint per capita in Qatar shows a dramatic increase from 7.7 gha in 1980 to 14.4 gha in 2016 (as showed below) which indicates how the increase of population and the urbanization affects the environment negatively.

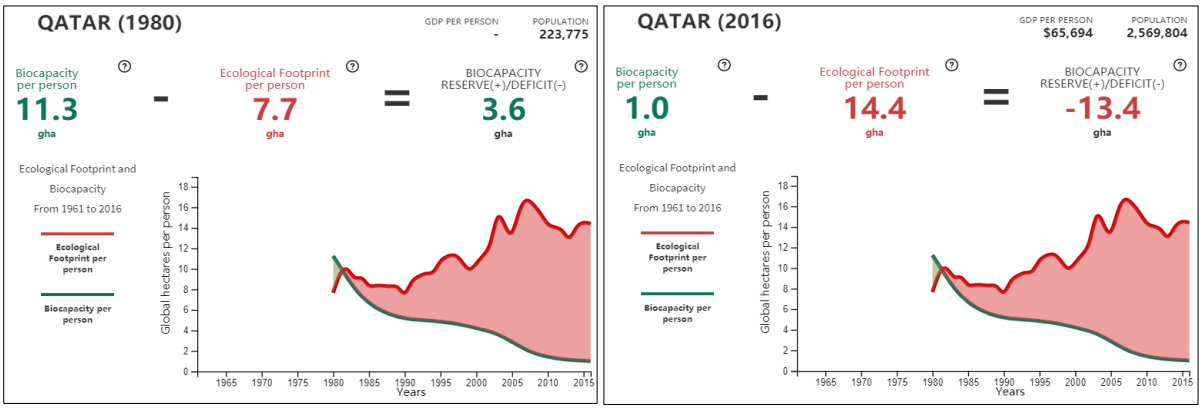

Figure 1: Qatar ecological footprint in 1980 and 2016

Today, the country is suffering from a very high temperature in summer that can reach 50ºC or above, which classified it to be one of the hottest lands in the world. The excessive use of resources, the lack of knowledge and sometimes the lack of social responsibility towards the environment drive the people to become unsustainable. Therefore, if people are going to adopt the same behaviour without giving the attention to environment, we will need 1.75 of our planet size so that it can afford our daily needs. It is important to understand that it is not only expectation and scientific calculations; we can see nowadays how climate change is affecting the world around us. Many countries experienced major floods and massive forest fires in 2019, and some shores started to sink due to the increase of sea level.

Thus, and in order to save the environment, the fourth pillar in Qatar National Vison 2030 came to affirm our country endeavour toward preserving the environment and it is clearly stated by ***her highness Shaikha Mozah bint Nasser Al-Misnid***:

> "We need to care for our natural environment for it was entrusted to us by God to use with responsibility and respect for the benefit of human kind. If we nurture our environment, it will nurture us."

1.2.What is Carbon Footprint?

Carbon footprint is the amount of greenhouse gases released to the atmosphere from every daily activity by individual, organization, or country such as transportation, powering, cooking, and other activities. It is measured in tons of carbon dioxide equivalent gases (CO_{2eq}) including methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulphur hexafluoride (SF_6) as per Kyoto protocol. The emission sources are classified into two categories, direct and indirect sources, based on how the organization's activities are contributing in emitting GHGs. For clarity, the fleet owned by QU is burning fuel and emitting emissions to the atmosphere so they are classified as direct source of GHGs, while the consequences of using the purchased electricity in campus, which was generated earlier by KAHRAMAA, are considered as an indirect source of emissions.

1.3. Why do we need to calculate the carbon footprint?

Since Qatar's economy depends mostly on fossil fuels, which is the main producer of carbon dioxide, it is threaten by severe environmental problems such as air pollution, biodiversity loss, desertification, coastal floods, and etc. Qatar is also ranked as one of the most carbon dioxide emitters in the region and there is a high need to look after the decisions and adopt new methods to save the environment around us. There is also a need to raise awareness campaigns and help the community to save the environment, thus, universities and schools are the best place to introduce new habits that will affect not only the institution but the whole community.

Therefore, measuring the carbon footprint helps in estimating the organization/institution contribution to global climate change. It gives a clear idea about the situation, and helps in making decision, putting plans, and implementing new techniques to reduce the emissions.

1.4. Qatar University at a Glance

Qatar University is the first governmental university in Qatar located on the northern outskirt of the capital Doha. The university was incepted by the end of seventies, in 1977, with the first four colleges: Education, Humanities & Social Sciences, Sharia & Law & Islamic Studies, and Science. As of today, Qatar University hosts ten colleges with 47 Bachelors, 29 Masters, 20 Ph.D. programs, nine Diplomas, and a Doctor of Pharmacy, with a total building area of more than 500,000 m^2. The cultural diversity QU have enriches its educational experience and encourages both students and staff to improve their communication skills with people from different regions in the world. The university hostel located inside the campus with an area of almost 106,910 m^2, and it hosts mostly the international students with some local students who are living in a bit far areas at Qatar. Moreover, the university opened an early childhood centre as a step to encourage its staff brining their kids to enjoy this multicultural place and gain a very different experience from their childhood.

In terms of sports, the university host a quite big area for sport facilities that is almost 28,000 m^2, and two activity centres in both men and women campuses where they can take their breaks between the lectures. It also have a standalone sport activity building for the women campus with an average area of 6255 m^2.

Today, the university population go over 20,000 students with more than 2000 faculty and staff members.

02 DESIGN AND DEVELOPMENT

2.1. Greenhouse Gas Protocol:

Several entities started to develop protocols to help in collecting and measuring the carbon footprint, however, at Qatar University we are following the GHG protocol developed by the World Resources Institute (WRI) and World Business Council for Sustainable Development (WBCSD) WRI/WBCSD.

2.2. QU Carbon Footprint Calculation Tool

The Sustainability Indicator Management and Analysis Platform (SIMAP) that is designed by the University of New Hampshire, U.S was used in calculating the QU carbon footprint. This tool helps in measuring, calculating, tracking, and reporting the campus carbon footprint. The institution provides the users with a workbook excel sheet in which all the data can be entered into it and then imported to the platform. The most efficient point we found it in this platform, that we can customize either the energy emission factors, or the fuel mix percentage in order for the system to measure the emissions. Therefore, any entity outside the U.S and Canada can use it.

2.3. Inventory Design:

In order to build a carbon footprint inventory, there is a need to have a consistent methodology that can be used not only in the start-up stage, but also for the coming years to be reasonable for comparing with the future values. Thus, figure () shows the main six elements that need to accomplish this project, and the main and most important element to start with is the organizational boundaries that will be discussed further in the next section.

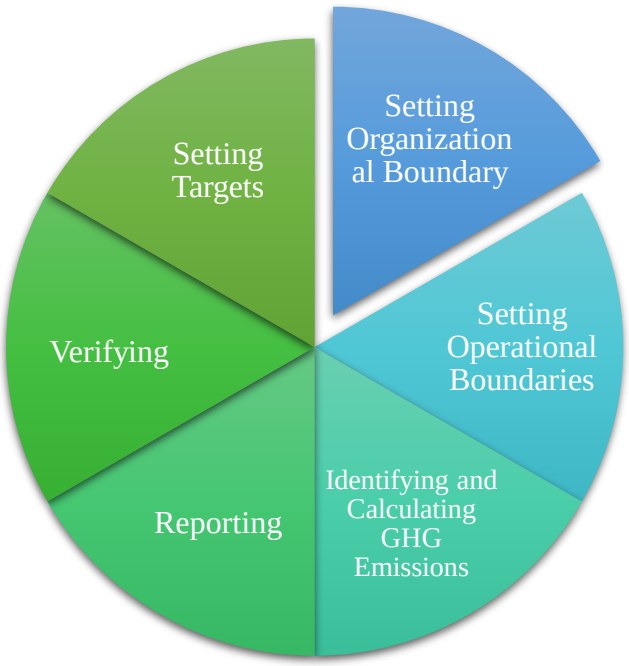

Figure 2: GHG Inventory design

2.3.1. Boundary Settings:

The hierarchy below was designed to help in defining the QU campus boundaries.

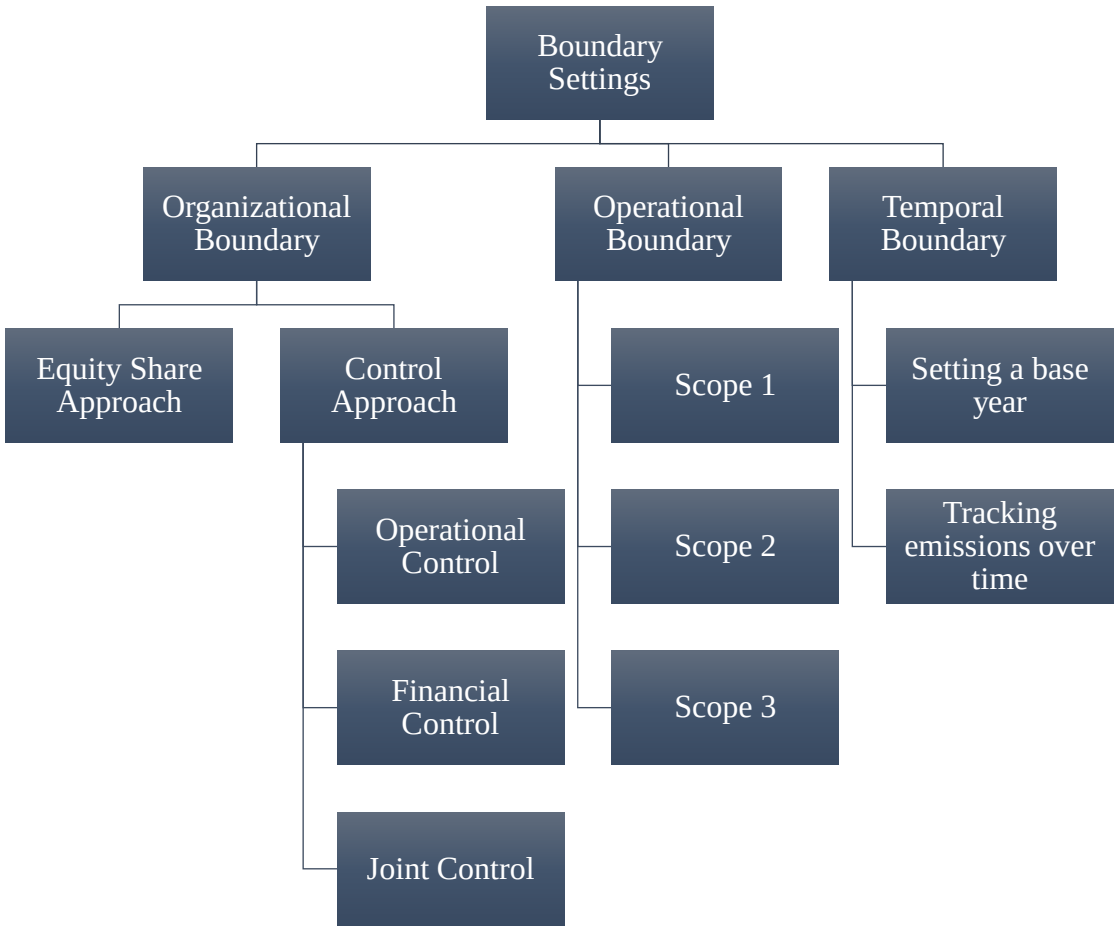

Figure 3: GHG Boundary setting hierarchy

A) Organizational Boundary:

Since Qatar University is a governmental institution, and accounts for almost hundred percent of the GHG emissions arise from its operations, having a full authority to implement its operational policies, thus, the control approach with an operational control was selected to be the organizational boundary. It is important to highlight that in local governmental organizations, the GHG protocol highlighted that in most case whether selecting operational or financial boundary, the results should not be affected.

B) Operational Boundary:

After setting the organizational boundary, the next step is to determine the operational boundary specifically through the three scopes, described below, in order to avoid the double counting of GHGs.

Carbon Footprint Scopes

In this protocol, the emissions fall into three main scopes based on their sources as described below:

Scope 1 – Core direct emissions: Emissions from activities owned by the organization or under its control. E.g. direct transportation, on-campus stationary sources, refrigerants, etc.

Scope 2 – Core indirect emissions: Emissions from activities that are neither owned nor operated by the organization but are directly connected to an on-campus energy consumption. E.g. purchased electricity, purchased steam, or purchased chilled water.

Scope 3 – Non-core indirect emissions: Other emissions attributed to the organization and are neither owned nor operated by the organization but are either directly financed by the organization or linked to it. E.g. directly financed outsource transportation, waste generated in operation, business and study travels, commuting, etc.

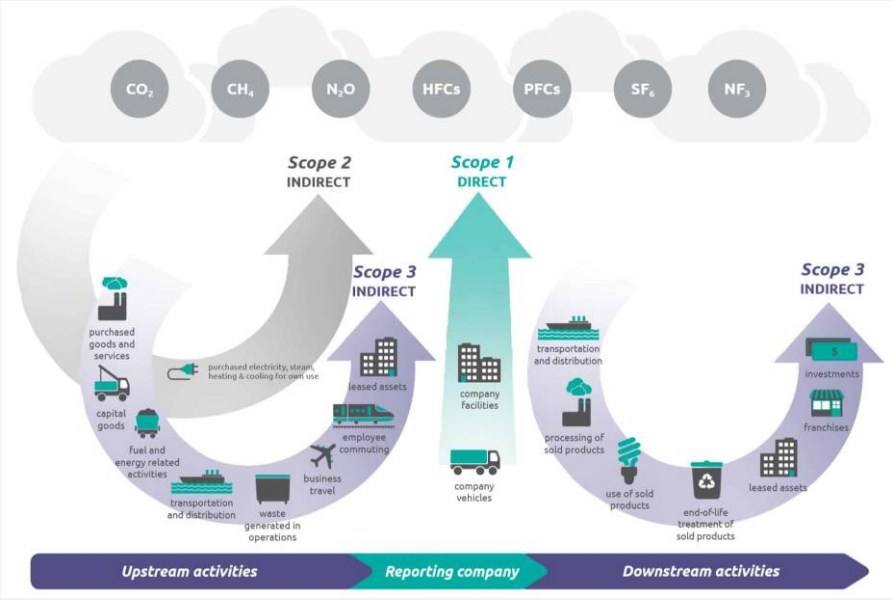

Figure 4: Infographic representation of the three scopes in calculating carbon footprint (1).

Figure (4) illustrates how the scopes are contributing in the total GHGs emitted from an organization, where the upstream activities are the production-related activities (those

generated as a result of extracting and importing fossil fuel), and the downstream activities are consumption-related activities (services and consuming goods related activities).

Scope 1 Core direct emissions

As described earlier, the core direct emissions are all kind of on-site sources of fuel/coal burning. It also includes chemical refrigerants, and agriculture sources arises from the N_4 emissions from animals (if available in campus) and N_2O emissions arises from fertilizers (2).

For example, the very basic diesel fuel combustion reaction below indicated how much carbon dioxide are released to the atmosphere as a result of burning 4 molecules of an average diesel compound:

$$4C_{12}H_{23} + 71\ O_2 \rightarrow 48\ CO_2 + 46\ H_2O$$

The same thing with refrigeration cycles in air conditioning which relies on chemical refrigerants for cooling, though, these compounds have a considerably high Global Warming Potential values. Thus, these compounds were added to the GHG emissions calculation by the Kyoto Protocol under the UNFCCC. It clarifies that, based on the type of equipment and amount of used refrigerants in an organization, the GHG can be estimated.

The table below is a real case study of a hotel where they examine the relevance of refrigerants as part of the overall GHG emissions.

Table 1: Example for the relevance of refrigerants as part of the overall GHG emissions

Refrigeration/ Air conditioning Equipment	Number of Units	Type of Refrigerant	GWP of Refrigerant	Refrigerant Charge (kilograms)	Annual Leakage Rate (%)	Operation Emissions (t of CO_2.e/yr)
Chiller I	1	R134a	1430	750	7%	75
Chiller II	1	R407C	1526	200	7%	21
Walk in chiller	7	R22/R404A	1700	13	7%	11
Walk in freezer	2	R22/R404A	1700	13	7%	3
Fridges/chillers	18	R134a	1430	1.5	7%	3
Fridge freezers	4	R22/R404A	1700	1.5	7%	1
Counter fridges	16	R22/R404A	1700	1.5	3%	1
Minibars in rooms	512	R600a	3	0.1	1%	0
Total						115

Scope 2 Core indirect emissions

This scope is for activities that are neither owned no under the institution control, but it is directly connected to an on-site energy consumption. It includes emissions arise from purchased energy in the form of electricity, steam, and chilled water (2). Since in our case the

purchased electricity is the only source of emissions in this scope, the emission factor was estimated from KAHRAMAA Annual Statistics Report 2018 and used to double check the calculations in this study, while the fuel mix was manually customized in the software to enable it to calculate the emissions of scope 2.

If we are assuming that a building in a campus is consuming 10,000 kWh of electricity in a month, that means around 4.30 MTons of CO_2 is emitted from electricity.

$$10{,}000\ \text{kWh} \times 0.000431\ \text{MTons}\frac{\text{CO}_2}{\text{kWh}} = 4.30\ \text{MTons}\ \text{CO}_2$$

0.000431 MTons CO_2/kWh – Estimated value from KAHRAMAA Statistics Report 2018

However, there is a need to calculate emission values of methane and nitrous oxide and calculate the equivalent carbon dioxide, but since their contribution is minimal and because of lake of information, we just calculate the carbon dioxide manually and compare it with the software values.

Scope 3 Non-core indirect emissions

This scope focus on activities that neither owned nor under the institutional control but connected to it in a way. Since this scope is optional, we decided to exclude it at this stage, and to be included in the future.

The following table shows the selected activities that are contributing in releasing GHG emissions at Qatar University. (Activities used in calculating QU carbon footprint)

Table 2: QU GHG scopes and their relevance activities

Scopes	Scope 1	Scope 2	Scope 3
QU activities/emission sources	Transportation	Purchased Electricity	Excluded
	Refrigeration		
	Agriculture		

03 IDENTIFYING AND CALCULATING GHG EMISSIONS

3.1. Institutional Data

The first step in collecting and measuring GHG process is to collect the institutional data, which is divided into three categories, they are:

A) University population,

B) Budget, and

C) Area Size.

3.1.1. Population at Qatar University

The number of both full-time and part-time students in the campus increased gradually from 2016 to 2019 as illustrated in the chart below, and is expected to keep increasing in the coming years. On the other hand, the number of both admin and academic staff working at the university was almost the same through the past four years with a minor increase started from 2018.

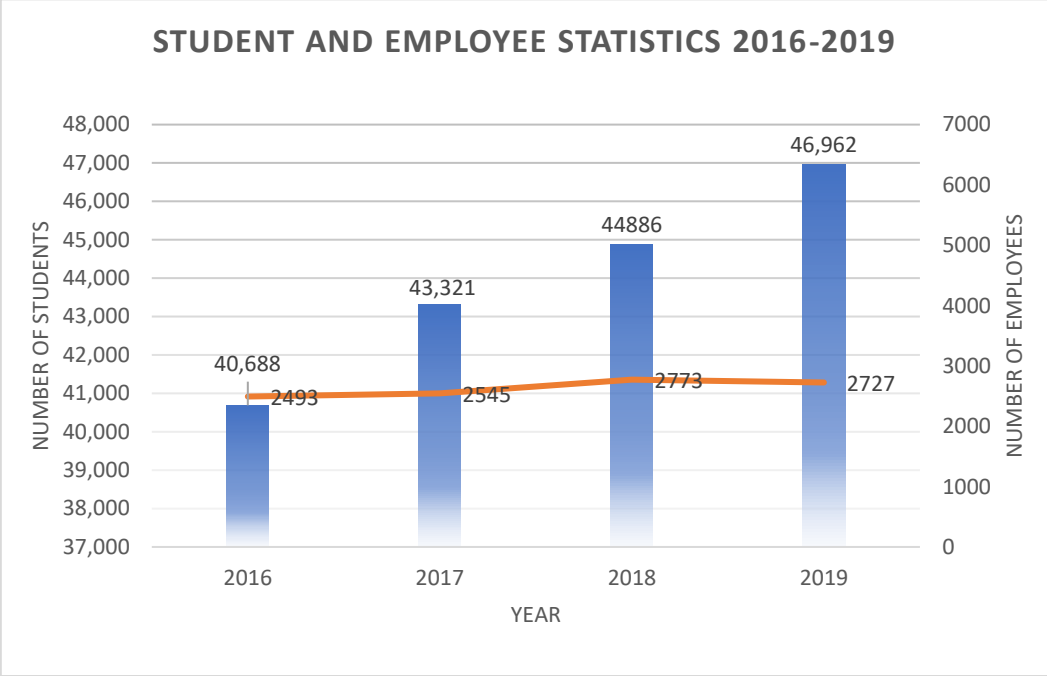

Figure 5: Student and employee statistics 2016-2019

All the student statistics were obtained from the Office of Institutional Planning & Development by the end of the academic year, which usually start by August and last for September, while the calculation done in this report were based on the fascial year that start annually by January in which our institution rely on budgeting and reporting. We did put in our considerations the consistency, thus the number of students were taken for each semester in order to ease the conversion between the academic year and our fascial year, as illustrated in the table below.

Table 3: Detailed student population in campus from 2016-2019

Semester	Full-time Students	Part-time Students	Total
Spring 16	14,599	1,761	16,360
Summer 16			6,422
Fall 16	16,133	1,773	17,906
Spring 17	15,459	2,099	17,558
Summer 17			6,611
Fall 17	17,060	2,092	19,152
Spring 18	16,085	2,378	18463
Summer 18			6685
Fall 2018	17,309	2,429	19,738
Spring 19	16,413	2,567	18,980
Summer 19			7,427
Fall 19	17,676	2,879	20,555

On contrast, the employees' statistic were obtained at the end of the calendar year from the Human Resources Department - Strategy and Development Office, and the detailed information are listed in the table below.

Table 4: Detailed employee population in campus from 2016-2019

Year	Academic Full Time	Admin Full time	Total New Hired	Total Employees
2016	1361	1132	165	2493
2017	1356	1189	177	2545
2018	1513	1260	131	2773
2019	1396	1331	121	2727

3.1.2. Budget

The total amount of currency spent in operation, research, and energy sectors were obtained from the Finance Department, and the use of it *was limited only to the calculation of the QU Carbon Footprint and not for publishing*.

3.1.3. Area Size

The calculated area was divided into two categories, Research and Building area size, based on the nature of work executed in the selected areas. The total area, type of location, calculation,

and needed AutoCAD drawings were obtained from the Civil Team – Facilities and General Services Department. This step took more time because the function in some locations of the old campus buildings needed to be updated before measuring the areas. This was done by checking all the laboratories in the campus and measuring their area using AutoCAD. The total building area data was already available with the AutoCAD team. The detailed information about the physical size are given in the appendix.

Table 5: Calculated total building and research building areas for the years 2016-2019

Year	Category	Total Building Space (ft^2)	Total Research Building Space (ft^2)
2016	Physical Size	3644085	239391
2017		6104989	239391
2018		6128369	239391
2019		6445732	239391

3.2. Scope 1– Data:

3.2.1 Refrigerants

The refrigerant data was obtained from the Mechanical Team – Facilities and General Services Department.

The main two refrigerants used at Qatar University for air conditioning and refrigerators are HFC-134a and HCFC-22, while other three types are being used in minimal amount, they are, R-404a, R-410a, and R-407c. The table below shows the amount used from each type per year.

Table 6: Detailed amount and type of refrigerants consumed 2016-2019

Year	Category	Type	Consumption Quantity (pound)
2016	Refrigerants & Chemicals	HFC-134a	297.00
		HCFC-22	1,695.00
2017		HFC-134a	327.00
		HCFC-22	1,825.00
2018		R-404a	41.20
		HFC-134a	1,457.60
		HCFC-22	2,965.00
2019		R-404a	41.00

		R-410a	100.00
		R-407c	60.00
		HFC-134a	1,458.00
		HCFC-22	2,965.00

3.2.2. Transportation

There are several types of vehicles used in our campus, including in-campus bus fleet used to travel the students between the buildings, in-campus special needs vehicles, home-campus bus fleet, and transportation cars to travel admin/academic staff from and to the campus in special occasions. Though, the only type that is fully under the campus control is the in-campus bus fleet. Therefore, the amount of fuel measured in this report is for the in-campus bus fleet, and it was obtained from the Transportation Section at the Facilities and General Services Department as illustrated below.

Table 7: Detailed amount of fuel consumed in campus from 2016-2019

Year	Category	Consumption Quantity (gallons)
2016	University Fleet	23,009.12
2017		20,007.11
2018		21,319.92
2019		21,271.27

3.3.3. Fertilization

In order to feed the landscape plants with the needed nutrients, two types of fertilizers are being used at Qatar University, they are Pasteurized Compost and Peat Moss (organic type) with 1.5% of nitrogen content, and Urea (synthetic type) with 46% of nitrogen content. The amount and nitrogen content of those fertilizers were obtained from the Civil and Landscape team – Facilities and General Services Department.

Table 8: Detailed amount of fertilizers from agriculture source consumed in campus landscapes from 2016-2019

Year	Category	Type	Consumption Quantity (gallons)
2016	Fertilizer	Synthetic	16,535.00
		Organic	672,630.00

2017		Synthetic	16,535.00
		Organic	140,999.00
2018		Synthetic	16,535.00
		Organic	132,277.00
2019		Synthetic	16,535.00
		Organic	195,660.00

3.3. Scope 2 – Data

3.3.1. Power Consumption

i. Data Source

The power consumption readings are collected through the buildings meters and then the consumption are being calculated. Since the electricity is supplied by KAHRAMAA, we are usually double check the readings with them to ensure that they are correct. All needed data related to power consumption are obtained from the Electrical Team – Facilities and General Services Department and the data for the years 2016-2019 are listed in the table below:

Table 9: Total amount of power consumption in campus from 2016-2019

Year	Category	Scope	Consumption Quantity (kWh)
2016	Electricity, Steam, and Chilled Water	2	99,332,277.94
2017			103,441,291.88
2018			149,608,353.85
2019			110,677,819.00

ii. Methodology:

Since the used tool is not designed for the MENA region, we had to customize our fuel mix that was used by KAHRAMAA to generate electricity, which was found to be 100% natural gas (3). The fuel mix percentage was then added to the tool to generate the function and find the emissions released as a result of the electrical consumption in campus.

3.4. Scope 3

As mentioned earlier, scope 3 is excluded from the calculation and planned to be included in the coming years.

04 RESULTS

4.1. Total footprint results

As shown in Chapter 3, all required data were obtained and manually entered into the SIMAP tool. The emission factors and related equations were generated by SIMAP tool, whereas only the fuel mix was entered manually to generate its emission factor as discussed earlier in the previous chapter. The start of fascial year was selected to be January, and the accuracy of the data is moderate. The tool then was able to calculate the carbon footprint and show how each category, and each scope is contributing in the footprint as summarized in the table below.

Table 10: Total carbon footprint results per category 2016-2019

Year	Direct Transportation	Refrigerants & Chemicals	Fertilizer & Animals	Purchased Electricity	T&D Losses	Net MTCDE
2016	200	1,584	72	38,497	3,807	44,161
2017	174	1,710	32	40,090	3,965	45,971
2018	185	3,453	31	57,982	5,734	67,386
2019	185	3,596	36	42,894	4,242	50,953

As it is clearly seen, the purchased electricity owns the most contribution in the footprint. It is almost contributing with average of 86% of the total footprint for the four years 2016-2019. Around 8% of the total footprint goes to the transportation and distribution losses of the purchased electricity, which occurs because of the wires resistance and equipment efficiency. Although the refrigerants and chemicals are not contributing with high percentage, but their emissions showed and increase trend from 2016-2019, where its contribution started with only 3.4% and it reached 7% of the total footprint in 2019 which is because of the increase in the quantity used in 2019. The least contribution goes for both direct transportation and fertilizers, though, it might not be the least ones because our input in transportation is only for one type of fleet (in-campus bus fleet) as mentioned earlier in Chapter 3, though, this is the only type we have a control over it. Generally, the net metric tons of equivelant carbon dioxide shows a gradual increase from 2016-2019. The total amount was 44161 MTCDE in 2016 which then increased by 13% in 2019 to reach 50953 MTCDE as shown in the figure below.

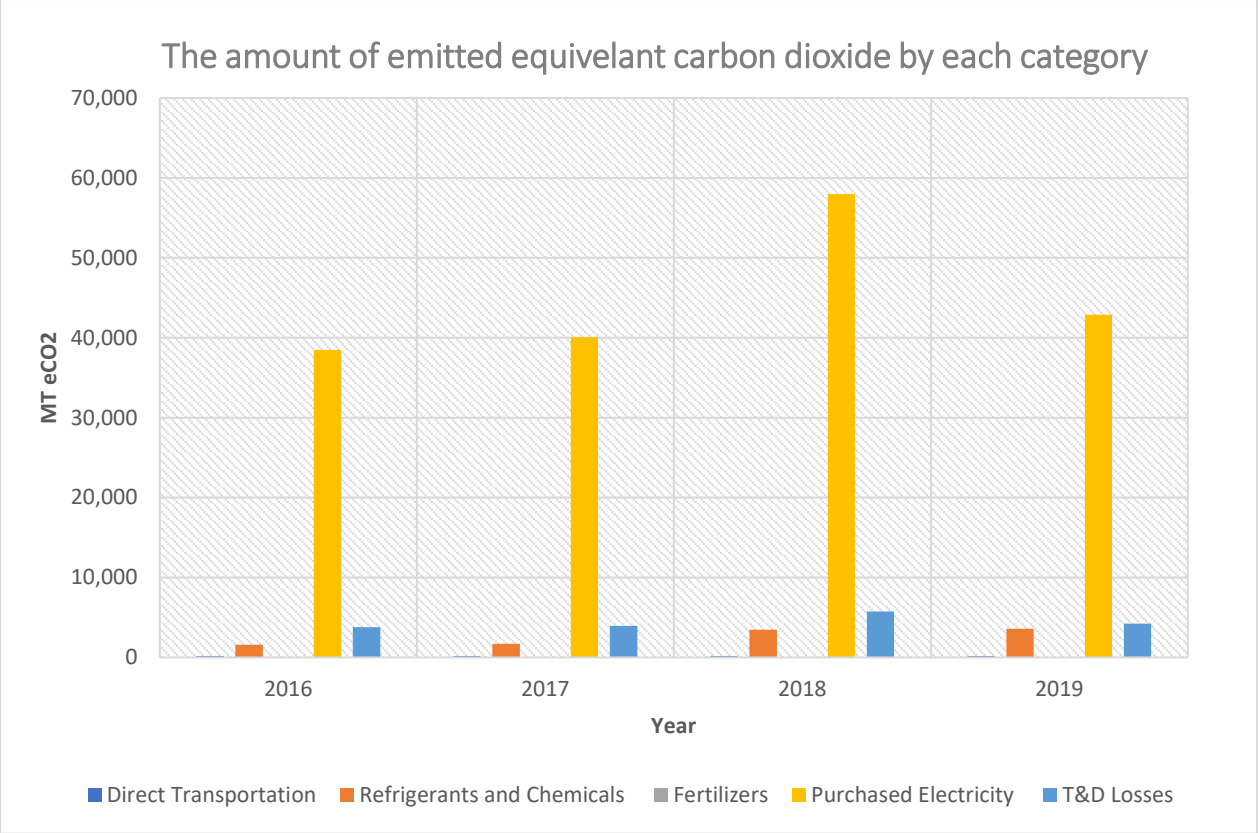

Figure 6: Graphic representation of the total carbon footprint results per category 2016-2019

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06 APPENDEX

APPENDEX A:

SN	Building Code	Name of the Building	Usage	Area (m2)	Year build
1	A01	Arena Pavilion Complex	Sports Facility	25,500	1988
2	A02	Main Court Pavilion	Sports Facility	550	1988
3	A03	Tennis Court Pavilion	Sports Facility	550	1988
4	A04	Swimming Pool Pavilion	Sports Facility	1,500	1988
5	A05	Administrative Affairs Building	Non Academics / Admn	3,955	2002
6	A06	Men's Foundation	Academic / Admn	3,750	2004
7	A07	Sport's & Events Complex	Sports Facility	27,000	2019
8	B01	Higher Administration	Administrative Facility	4,700	1984
9	B02	Men's Activity Center	Indoor Sports / Recreational Facility	6,590	1986
10	B03	Information Technology Services	Administrative Facility	3,095	1986
11	B04	College Of Education	Academic Facility	8,060	1984
12	B05	Main Men's Building	Academic Facility	7,623	1984
13	B06	Engineering Annex	Academic Facility	1,066	1984
14	B07	Engineering Workshop	Academic Facility/Workshop	2,941	1984
15	B08	Green House	Indoor agriculture	151	1984
16	B09	CEng Research Center	Research	3,327	1990
17	B10	Qatar National Bank	Bank facility	929	1999
18	B11	Ibn Khaldoon Hall	Mass Events Facility	1,003	1999
19	B12	Mosque	Administrative Facility	1,362	1990
20	B13	Library Building	Academic Facility	45,251	2012
21	B14	Security Point	Administrative Facility	6	
22	B15	Security Point	Administrative Facility	6	
23	BCR	Corridors A-J (Men's College Of Arts and Sciences)	Academic Facility	26,824	1984
24	C01	College of Arts & Science	Academic Facility	25,558	2000
25	C02 &C03	Faculty Office Building	Academic/Event Facility	9,963	1984
26	C04	Main Women's Building	Academic Facility	10,850	1984
27	C05	Women's Activity Centre	Indoor Sports / Recreational Facility	7,139	1986
28	C06	Medical Clinic	Health Facility	919	1998
29	C07	College of Engineering-Women's	Academic Facility	12,684	2009
30	C08	Business Operation Department (BOD)	Facility Operation	3,828	1984
31	C09	Central Service Unit (CSU # 1)	Utility Facility	2,156	1984
32	C11	College of Sharia and Islamic Studies	Academic Facility	3,954	2002

33	C12	Admission And Registration Building	Administrative Facility	3,395	2003
34	C13	Security Point	Administrative Facility	30	
35	D01	Al-Bidaa Building	Academic Facility	2,762	1995
36	D02	Women's Car Park Arena	Parking	1,384	1997
37	D03	Women's Sports Facility	Indoor Sports	6,255	1986
38	D04	Women's Food Court	Food Court	7,503	2009
39	D05	Women's Foundation	Academic Facility	4,491	2007
40	D06	Female Class Room Building	Academic Facilities	13,022	2016
41	D07	Earlychildhood	Academic Facilities	5,002	2017
42	D08	Security Point	Administrative Facility	14	2014
43	D09	Security Point	Administrative Facility	30	
44	D10	Security Point	Administrative Facility	14	
45	E01	Main Entrance Gate#1	Administrative Facility	250	
46	E01	Security Point	Administrative Facility	25	
47	F01	Entrance Gate-02 (Female)	Administrative Facility	60	
48	F02	Guard House (Gate # 2)	Administrative Facility	133	2007
49	F03	CCTV Main Control Room	Administrative Facility	820	2007
50	F04	Security Services	Administrative Facility	433	2018
51	F05 to F20	Students Housing	Housing Facilities	106,910	2017
52	F21 to 28	Security Point	Administrative Facility	136	2017
53	F27	Entrance Gate	Administrative Facility	35	
54	F28	Entrance Gate	Administrative Facility	35	
55	H08	College of Business and Economics	Academic Facility	27,780	2011
56	H06	Annex Building	Academic Facility	2,484	2019
57	H09	Central Service Unit (CSU# 2)	Utility Facility	5,231	2010
58	H10	Research Complex Building	Academic Facility	19,455	2013
59	H 11	Guard House (Gate # 5)	Administrative Facility	150	2014
60	H 11	Entrance Gate	Administrative Facility	35	
61	H12	Male Class room Building	Academic Facilities	8,181	2015
62	H13	Multistorey Car Park	Parking	94,562	2017
63	H14	Wind Modeling Research Center	Utility Facility	1,739	2018
64	H15	Security Point	Administrative Facility	6	
65	H16	Security Point	Administrative Facility	6	
66	H17	Security Point	Administrative Facility	8	

67	I 01	General Service Section	Facility Operation		2000
68	I 02	Central and Maintenance Store	Store Facility	5,800	2014
69	I 03	New Office Building	Administrative Facility	5,400	2014
70	I 04	Guard House (Gate # 3)	Administrative Facility	150	2014
71	I04	Entrance Gate	Administrative Facility	35	
72	I 05	Boat Yard building	Utility Facility	265	2014
73	I 06	College of Pharmacy	Academic Facility	21,926	2017
74	I12	Security Point	Administrative Facility	17	
75	I12	Entrance Gate	Administrative Facility	35	
76	I13	Security Point	Administrative Facility	17	2014
77	I14	Security Point	Administrative Facility	17	2014
				598,828	