

Knowledge Institutions in Africa and their development 1960-2020

Rwanda

Introduction

This report about the development of the knowledge institutions in Rwanda was made as part of the preparations for the AfricaKnows! Conference (2 December 2020 – February 2021) in Leiden, and elsewhere; see www.africaknows.eu.



Reports like these can never be complete, and there might also be mistakes. Additions and corrections are welcome! Please send those to dietzaj@asc.leidenuniv.nl

Highlights

- 1 Rwanda's population was 2.9 million in 1960 and 7.3 million in 1990. After the 1994 genocide it had decreased to 5.8 million, but afterwards it increased rapidly to 13.0 million in 2020.
- 2 The adult literacy rate in the country was 78% for men and 69% for women in 2018. The mean years of schooling for adults had increased from 1.8 years in 1990 to 4.4 years in 2018.
- 3 The education index, part of the human development index, increased from .218 in 1990 to .458 in 2018. Net primary school enrolment is >90% and net secondary school enrolment 36%. The expected years of schooling for children has increased from 5.7 years in 1990 to 11.2 years in 2018.
- 4 Kigali (almost) always had the best education position, but the position of worst region is not so clear, although in 2018 the East had the lowest scores; it is also the region with a very high recent population growth.
- 5 Gross tertiary enrolment was 6.2% in 2019: a total of ca 75,000 students in Rwanda's higher education institutions.
- 6 Rwanda's universities started late; only after Independence in 1962. There are only two public institutions, but the number of private institutions has grown very fast after 2000, and currently there are 6 private religious tertiary knowledge institutes, and 23 non-religious ones. In Rwanda there are more students in private institutes than in public ones, one of the rare cases in Africa.

- 7 Universities have a wide regional coverage, although headquarters are often based in Kigali.
- 8 We only found one existing think tank in the country and 17 museums.

Part 1: The Story

Introduction: Rwanda's demographic and education development.

Rwanda was a German colony from 1885 to 1919. After that, Rwanda was mandated to Belgium by the League of Nations until 1945. From 1945 until 1961 the country was a UN trust territory, under Belgian rule. In 1961 the country got its independence. Grégoire Kayibanda became the first president of the Republic of Rwanda. He stayed at that position until 1973. The second president was Juvénal Habyarimana (1973-1994). After him, Pasteur Bizimungu was president (1994-2000). The current president, Paul Kagame, became president in 2000. (Wikipedia, 2019¹). Rwanda has a history of Hutu-Tutsi conflict, which particularly escalated in 1990, when the armed wing of the Rwandan Patriotic Front (RPF), a movement mainly made up of the Tutsi refugee diaspora in Uganda, invaded Rwanda and a civil war started, that became a genocide against the Tutsi, and moderate Hutu people. After 100 days of genocide, the RPF brought the genocide to a standstill and initiated a new government in 1994 that lasts until today.

Rwanda's population increased from 2.9 million in 1960 to 13.0 million in 2020. In 1960, a very small part of the population, 2.6 percent, was urban (76,000 people); in 2019 this number had increased to 17.5 percent, still one of the lowest proportions in Africa (2.2 million people). Kigali is the capital city of Rwanda and currently has 745,000 inhabitants. Other big cities in Uganda are Butare (90,000), Gitarama (87,000), Musanze (87,000) and Gisenyi (83,000). Life expectancy in the country in 2019 is 67.8 years for males and 72.2 years for females. In 1960 these numbers were respectively 42.0 years and 44.8 years. The median age in 1960 was 16.3 years. This number increased until 2019 to 19.6 years. In 1960 an average woman gave birth to 8.2 children. This has decreased to 4.1 children per woman in 2019 (Worldometers, 2020)².

¹ Wikipedia. (2019). List of heads of state of Rwanda. Consulted on 16 January 2020, from https://en.wikipedia.org/wiki/List_of_presidents_of_Rwanda

² Worldometers. (2020). Rwanda Population. Consulted on 16 January 2020, from <https://www.worldometers.info/world-population/rwanda-population/>



Figure 1: map of Rwanda. This map is from the following website:
<https://www.freeworldmaps.net/>

Literacy and enrolment

According to UNESCO³, the adult literacy rate was 78% for men and 69% for women in 2018, and 804,000 adult men, and 1,164,000 adult women were being regarded as illiterate.

Education in Rwanda is compulsory from age 7 to 12, a total of six years. The population of Rwanda's primary school-age children (7-12 years) has increased from 0.5 million in 1960 to 1.9 million in 2020. The net primary school enrollment in Rwanda was 55% in 1973. In 2016 this number had increased to 99%, but afterwards it has decreased to 92% in 2019. Men and women are equally represented in primary school. Secondary school enrollment in Rwanda stood at 36% in 2019 (men 33%, women 39%)⁴. There are 1.7 million children of secondary school age in Rwanda.

The population between 19 and 23 years living in Rwanda, the group from which most of the university students come from, increased from ca 200,000 in 1960 to 1.2 million in 2020. However, the so-called 'gross enrolment rate' of tertiary students (all counted tertiary students divided by the age cohort) was only 6.2% in 2019 (men 6.8% and women 5.7%). This would mean that Rwanda has 75,000 students in its higher education institutions. Campusfrance estimated these numbers as 71,000 in 2012, and 81,000 in 2017, of which 1400 coming from neighbouring countries, mainly Burundi and the DRC. In 2012 there were 6,200 Rwandan students abroad, and in 2017 4,800: mainly in the USA, the DRC, France, India, and Canada.

Regional differentiation of education results in Rwanda, 1990-2018

The information provided by the Globaldatalab about the subregional human development index, its components and its indicators (<https://globaldatalab.org/shdi>) provides data for the

³ <http://uis.unesco.org/en/country/rw>

⁴ Next to UNESCO, also: Indexmundi. (2020). Rwanda-School enrollment. Consulted on 16 January 2020, from <https://www.indexmundi.com/facts/rwanda/school-enrollment>

period between 1990 and 2018, and uses five regions. Between 1990 and 2018 the population of Rwanda as a whole increased with 169%, but regional differences are considerable: from 495% in East to only 108% in the City of Kigali. Because of the genocide and resulting death and migration Rwanda's population decreased between 1990 and 1995 (the genocide was in 1994) and all regions lost people, with the exception of East. East was also the area with tremendous growth throughout the period 1990-2018.

The Globaldatalab provides data about the education index (one of the three indexes that together form the Human Development Index), and about two relevant indicators: mean years of schooling, showing the average education level of the adult population per region, and expected years of education, showing the expected number of years current children will attend schools.

We present the data for the years 1990, 2000, 2010, and 2018 (the latest year available at the moment). See tables 1-4 in part 2.

Education Index

The education index is one of the elements of the human development index. In Rwanda there was a continuous improvement, even during the turmoil of the 1990s (although regional inequality increased during that decade), and the improvements happened in all regions. For the country as a whole the index increased from .218 to .458, a considerable improvement. Kigali had and has the best education situation, and also improved most. The region with the worst education situation was the East in 1990, and again is the East in 2018, but in between this position was taken by the North in 2000, and by the West in 2010. While the South shows the slowest overall development. With the exception of 2000, regional inequality always was modest.

Mean Years of Schooling for Adults

According to UNESCO, 'Mean Years of Schooling' is an indicator about the "average number of completed years of education of a country's population aged 25 years and older, excluding years spent repeating individual grades"⁵. In Rwanda as a whole there was a substantial improvement between 1990 and 2018 (from 1.8 years to 4.4 years), and that was the situation for all regions. Kigali had and has the best situation and the fastest growth. The region with the slowest growth was the South. But the worst region shifted from East+North+West in 1990, via North alone in 2000, and North and West in 2010, to East and West in 2018. Regional inequality increased a lot between 1990 and 2000, but diminished from 2000 onwards, but not yet to the level of 1990.

Expected Years of Schooling for Children

UNDP defines the 'expected years of schooling' as the: "Number of years of schooling that a child of school entrance age can expect to receive if prevailing patterns of age-specific enrolment rates persist throughout the child's life"⁶. For Rwanda as a whole the indicator increased from 5.7 years in 1990 to 11.2 years in 2018, a substantial improvement. In 1990

⁵ <http://uis.unesco.org/en/glossary-term/mean-years-schooling>

⁶ <http://hdr.undp.org/en/content/expected-years-schooling-children-years>

the best region used to be the North, but afterwards that position has shifted to Kigali. With the exception of 2000 the worst region was and is the East (in 2000 the North, that also had the slowest improvement between 1990 and 2018. Regional inequality was already low in 1990, but decreased after 2000 to very low levels.

Rwanda’s tertiary knowledge development

In 2019, Rwanda had 31 universities. Of these universities, 2 were public, 6 private religious and 23 private non-religious. A university is a religious university if it is founded by a religious institution or if some kind of denotation is in the name of the university. For this analysis, we included polytechniques and left out ‘colleges’, except for some exceptions, as universities. Although Rwanda is a small country, several think tanks are present in Rwanda. Rwanda is also having a number of museums.

Historical development of the number of universities.

Type	1960	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010	2015	2020
publ	0	1	1	1	1	1	1	1	1	1	2	2	2
Priv rel	0	0	0	0	0	1	1	1	2	3	5	5	5+1
Priv oth	0	0	0	0	0	0	0	0	1	5	9	17	19+4
Total	0	1	1	1	1	2	2	2	4	9	15	23	25+6

Historical development of universities in Rwanda 1960-2019. The universities that existed in the 1960s were established before 1960 and not necessarily in the previous five years. In the last column some ‘adding’ finds place. These are the universities for which the date of establishment could not be found.

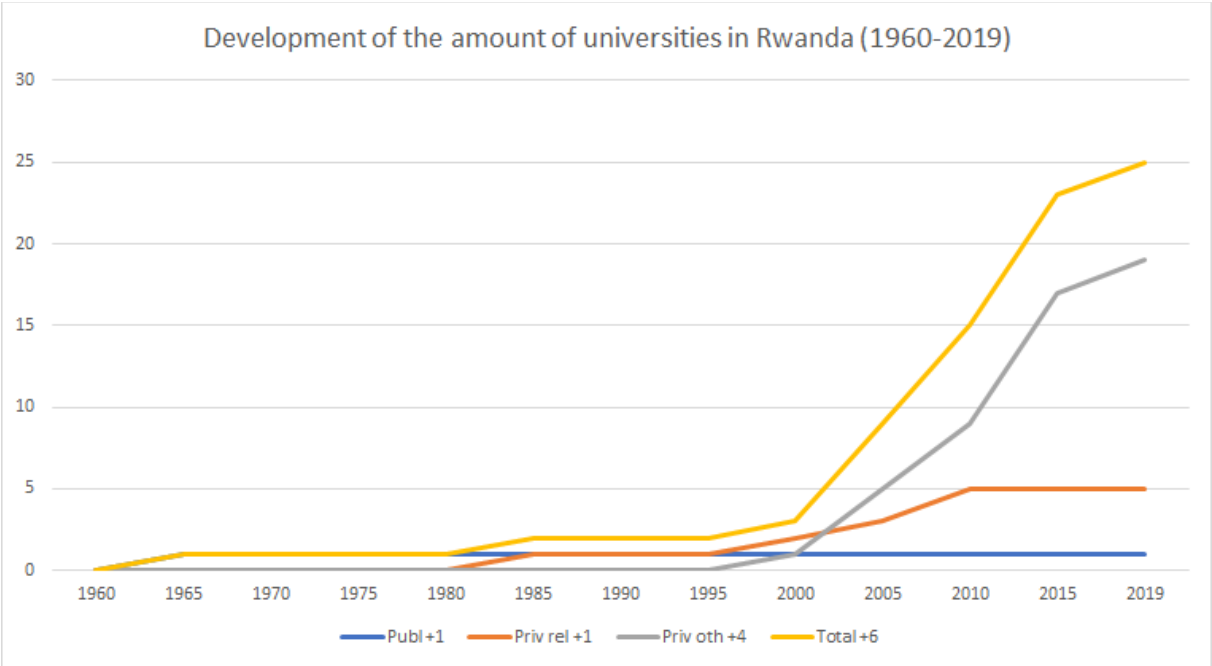


Figure 2: Historical development of universities in Rwanda 1960-2019. The universities that existed in in the 1960s were established before 1960 and not necessarily in the previous five years.

First, some information will be presented about the public universities, after that the private ones, the think tanks and the museums. This information includes the type of university, number of students, the current location of the campus and the website of the university.

Public universities in Rwanda



University of Rwanda⁷

Rwanda does not have many public Universities: only two: the University of Rwanda and the Institute of Legal Practice and Development. The National University of Rwanda was established in 1963 as the National University of Rwanda. At this university all subjects can be studied. The reason that the number of public universities is really low in Rwanda is first the small dimensions of the country. The second reason is the fact that the university is located in many cities throughout Rwanda and these colleges all belong to the same university. The estimated number of students in public universities is more than 30,000 students. However, the number of enrolled students at private universities is more than 40,000 students; for Africa a very exceptional situation. This number is established by adding all the known numbers of students per university regardless the year a specific number of students was noticed. See table 5 in part 2.

Private universities in Rwanda

⁷ <https://www.therwandan.com/wp-content/uploads/2017/01/uNR.jpg>



Adventist University of Central Africa⁸



Kigali Independent University⁹

The oldest religious private university in Rwanda is the Adventist University of Central (and East) Africa (1984) and the oldest non-religious private university is the Kigali Independent University which was established in 1996. The two biggest private universities right now are the Kigali Independent University with 7,000 students and the University of Lay Adventists of Kigali with 5,280 students. On average, the private universities each have a few thousand students (around 2,000). The total estimation of the number of students currently enrolled at a private university in Rwanda is 40,000 students. Most of the private universities are located in Kigali. After Kigali the universities are almost equally distributed over the country. See table 6 in part 2

Think tanks in Rwanda

Only one think tank could be found in Rwanda: The Institute for Policy Analysis and Research. It was established in 2008 in Kigali. The think tank wants to organize a dialogue between the people and the government in such a way that both will be heard and a working policy can be set up. See table 7 in part 2. According to UNESCO Rwanda has around 500 – 600 researchers in employed positions (ca 22% of them women). In 2016 52% worked in higher education, 38% in (other) government positions, 7% in NGOs, and 4% in business¹⁰.

Museums in Rwanda

There are 17 museums in Rwanda. Most of the museums in Rwanda have something to do with the civil war and the genocide in 1994. The Museums in Rwanda are almost all owned by the government. Some of the museums have a second function: the war is not that long ago, so these museums are also places where victims of the war can talk about their problems. Most of the museums with no establishment date are memorial centers. So most of them were established after the genocide of 1994. See table 8 in part 2.

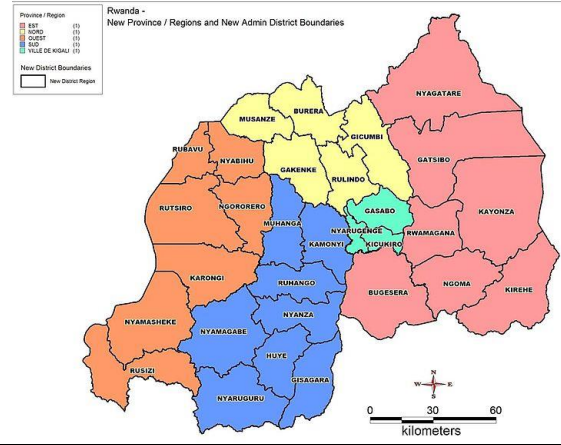
⁸ https://lh3.googleusercontent.com/proxy/EZw1phNgSaZfu-8eYE7VnvTKyymPbGp7d4S66mUo9wlQsL_Vd_UdcRPNQYor_Eblbkre2zrO5updXON9HsCaSKBKFc4eIsIHJtVSuKnXt2-O-otN7kw9JeFIZPgFqNnlmT9HqWWA4tcJb1Uf-WfH_ifS3qiQeio

⁹ https://www.ulk.ac.rw/wp-content/uploads/2017/08/ULK_Masters_Building-550x400.jpg

¹⁰ <http://uis.unesco.org/en/country/rw?theme=science-technology-and-innovation>

Part 2: The Data

Map and table 1: Rwanda: Regions and Population 1990, 1995 and 2018

Map	Region / Région	Population x 1000			'18/ '90
		1990	1995	2018	
	City of Kigali	1270	700	1370	1.08
	East	630	890	3120	4.95
	North	1290	1110	2020	1.57
	South	2260	1650	2980	1.32
	West	1840	1480	2820	1.53
Total		7290	5840	12300	1.69

Source: <https://globaldatalab.org> 4.0

Map:

https://upload.wikimedia.org/wikipedia/commons/thumb/c/c4/Rwanda_Districts_Map.jpg/1200px-Rwanda_Districts_Map.jpg

Table 2: Rwanda: Education index 1990-2018¹¹

Region	1990	2000	2010	2018	2018/1990
City of Kigali	240	413	554	560	2.33
East	188	270	416	427	2.27
North	221	257	423	448	2.03
South	222	260	435	446	2.01
West	206	284	415	451	2.19
Total	218	276	437	458	2.10
Inequality	1.3	1.6	1.3	1.3	

Table 3: Rwanda, Regional data for 'mean years of schooling for adults'

Region	1990	2000	2010	2018	2018/1990
City of Kigali	2.3	5.2	6.9	7.4	3.22
East	1.5	2.3	3.5	3.9	2.60
North	1.5	2.0	3.4	4.1	2.73
South	1.9	2.1	3.5	4.1	2.16
West	1.5	2.2	3.4	3.9	2.60
Total	1.8	2.3	3.8	4.4	2.44
Inequality	1.5	2.6	2.0	1.9	

¹¹ The HDI data, and its components go from 0 (worst level) to 1 (best level). We present the figures x 1000. The inequality figure is the highest value divided by the lowest value in a particular year.

Table 4: Rwanda: Regional data for ‘expected years of schooling for children’

Region	1990	2000	2010	2018	2018/1990
City of Kigali	5.9	8.7	11.6	11.3	1.92
East	5.0	7.0	10.8	10.7	2.14
North	6.1	6.8	11.1	11.2	1.84
South	5.8	6.9	11.4	11.2	1.93
West	5.6	7.6	10.9	11.5	2.05
Total	5.7	7.2	11.1	11.2	1.96
Inequality	1.2	1.3	1.1	1.1	

Table 5: Public universities in Rwanda

University	University since	Subjects	Students	(current) location of campus(es)	Website
University of Rwanda (UR)	1963-National University of Rwanda (2013 UoR)	1,2,3,4,5	30445 (2015)	Kigali, Gikondo, Remera, Nyarungenge, Huye, Busogo, Rubirizi, Nyamishaba, Nyagatare, Rusizi, Kicukiro, Musanze, Rukara, Byumba and Kibungo	https://ur.ac.rw/
Institute of Legal Practice and Development (ILPD)	2006	5	?	Nyanza	http://197.243.22.137/ilpd/index.php?id=2

Table 5: The sources for the data are mainly from the sites of the universities themselves. Additional information is found in Wikipedia, the 4ICU, and WHED. The numbers found in the column of ‘subjects’ indicate what kind of studies the university present to the students. 1=Natural Science, 2=Technical Science, 3=Medicine and Health, 4=Humanities and Social Studies and 5= Business Studies, Economics and Law.

Table 6: Private universities in Rwanda

University	University since	Subjects	Students	(current) location	Website

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				of campus (es)	
Adventist University of Central (and East) Africa (AUCA) (religious)	1984	4,5	4000	Kigali	http://www.auca.ac.rw/
Kigali Independent University (ULK)	1996	2,4,5	7000	Kigali, Gisenyi	https://en.wikipedia.org/wiki/Kigali_Independent_University
University of Gitwe (UG)	1997 (1993-ISP)	3	?	Gitwe	http://www.uog.ac.rw/
University of Lay Adventists of Kigali (UNILAK) (religious)	1997	1,4,5	5280	Kigali	http://www.unilak.ac.rw/
Ruli Higher Institute of Health (RHIH)	2001	3	?	Gakenke	https://www.rhih.org/
Université Catholique de Kabgayi (religious)	2002	4,5	?	Kabgayi	http://www.uck.ac.rw/
Universite de Kibungo (UNIK)	2003	1,2,4,5	?	Kibungo, Rulindo	http://www.unik.ac.rw/
Institut d'Enseignement Supérieur de Ruhengeri (INES)	2003	2,5	3000	Musanze	https://ines.ac.rw/
KIM University	2005	5	1000	Kigali	https://kimuniversity.ac.rw/
University of Tourism,	2006	5	1800	Kigali	https://www.utb.ac.rw/

Technology and Business Studies (UTB)					
University of Technology and Arts of Byumba (UTAB)	2006	1,4,5	5000	Byumba	https://www.utab.ac.rw/
Akilah Institute for Women (AIWK)	2008	1,2,5	2000	Kigali	https://www.akilahinstitute.org/
Catholic University of Rwanda (CUR) (religious)	2010	1,4,5	?	Butare	http://www.cur.ac.rw/
Mount Kenya University Kigali Campus (MKU Kigali) (foreign)	2010	?	600	Kigali	https://www.mku.ac.ke/index.php/mku-campuses/kigali-campus
Protestant Institute of Arts & Social Sciences (PIASS)	2010	4,5	?	Huye	http://piass.ac.rw/
Carnegie Mellon University Rwanda (CMUR)	2011	2	?	Kigali	https://www.africa.engineering.cmu.edu/
Kibogora Polytechnic (KP)	2012	4,5	500 (2019)	Nyamasheke	https://kp.ac.rw/
University of Kigali (UoK)	2013	4,5	5000	Kigali	https://uok.ac.rw/

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Jomo Kenyatta University of Agriculture and Technology, Kigali Campus (JKUAT Kigali)	2013	1,2,5	1822 (2017)	Kigali	http://www.jkuat.ac.ke/campuses/kigali/
Nile Source Polytechnic of Applied Arts (NSPA)	2013	1,4,5	?	Butare	https://www.4icu.org/reviews/17431.htm
Premier ECDE Teachers College (PE CDTC)	2013	4	107	Kigali	https://en.wikipedia.org/wiki/Premier_ECDE_Teachers_College
Rusizi International University (RIU)	2014	3,4	?	Rusizi	https://www.4icu.org/reviews/17432.htm
University of Global Health Equity (UGHE)	2015	3	1000	Kigali	https://ughe.org/
East African University Rwanda (EAUR)	2016	4,5	200	Nyagatare	http://eur.ac.rw/
African Leadership University Rwanda	2017	5	300	Kigali	https://www.alueducation.com/campuses/alu-rwanda/
Kigali Integrated College(KIC)	?	2	?	Kigali	http://kic.ac.rw/about/

Christian University of Rwanda (CHUR) (religious)	?	1,2,4,5	?	Kigali	https://www.chur.ac.rw/
Muhabura Integrated Polytechnic College (MIPC)	?	2	1320	Musanze	http://mipc.ac.rw/
Vatel	?	5	?	Kigali	https://www.vatel.rw/

Table 6: The sources for the data are mainly from the sites of the universities themselves. Additional information is found in Wikipedia, the 4ICU, and WHED. The numbers found in the column of 'subjects' indicate what kind of studies the university present to the students. 1=Natural Science, 2=Technical Science, 3=Medicine and Health, 4=Humanities and Social Studies and 5= Business Studies, Economics and Law.

Table 7: think tanks in Rwanda

Name	Year established	Where	Website
Institute for Policy Analysis and Research (IPR)	2008	Kigali	http://www.ipar-rwanda.org/

Table 7: Thinktanks in Uganda, sorted by year of establishment. The information in this table is from the sites in the fourth column.

Table 8: Museums in Rwanda

Name	Year established and ownership	Where	Website
Ethnographic Museum	1987 (The Institute of National Museums of Rwanda (INMR))	Huye	https://www.museum.gov.rw/index.php?id=68
Murambi Genocide Memorial Centre	1995 (Unknown)	Murambi	https://en.wikipedia.org/wiki/Murambi_Genocide_Memorial_Centre
Kigali Genocide Memorial	2004 (Government)	Kigali	https://www.visitrwanda.com/interests/kigali-genocide-memorial/
Museum of	2015 (The Institute of National	Karongi	https://www.museum.gov.rw/index.php?id=71

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Environment	Museums of Rwanda (INMR))		
Campaign Against Genocide Museum	2017 (The Institute of National Museums of Rwanda (INMR))	Kigali	https://www.museum.gov.rw/index.php?id=73
Kandt House Museum	2017 (The Institute of National Museums of Rwanda (INMR))	Kigali	https://www.museum.gov.rw/index.php?id=75
The Natural Art Gallery (From 2006 it was located in Nyanza)	2018 (The Institute of National Museums of Rwanda (INMR))	Kanombe	https://www.museum.gov.rw/index.php?id=70
Rwanda Art Museum	2018 (The Institute of National Museums of Rwanda (INMR))	Kanombe	https://www.museum.gov.rw/index.php?id=74
Nyanza Genocide Memorial	2019 (Unknown)	Nyanza	https://www.newtimes.co.rw/news/kwibuka25-memorial-garden-be-launched-nyanza
King's Palace	?(The Institute of National Museums of Rwanda (INMR))	Nyanza	https://museum.gov.rw/index.php?id=69
National Liberation park Museum	Currently build (The Institute of National Museums of Rwanda (INMR))	Gicumbi	https://www.museum.gov.rw/index.php?id=72

Bugesera museum	? (Unknown)	Biryongo	Unknown
Ntarama memorial Centre	? (Unknown)	Ntarama	https://en.wikipedia.org/wiki/Ntarama_Genocide_Memorial_Centre
Nyamata Genocide Memorial Centre	? (Unknown)	Nyamata	https://en.wikipedia.org/wiki/Nyamata_Genocide_Memorial_Centre
Bisesero Genocide Memorial Centre	? (Unknown)	Bisesero	https://en.wikipedia.org/wiki/Bisesero_Genocide_Memorial_Centre
Nyarubue genocide Memorial	? (Unknown)	Nyarubue	https://www.kagerasafaris.com/rwanda-genocide-memorial-centres/

Table 5: museums in Uganda, sorted by year of establishment the information in this table is from the sites in the fourth column.

This report was made as a student assignment for the Bachelor's Minor 'African Dynamics', which is a joint course of Leiden University, Delft University of Technology and Erasmus University Rotterdam, guided by the African Studies Centre Leiden (Marleen Dekker and Madi Ditmars). This report was made by Ivan Eikelenboom (TUDelft Industrial Design), and supervised and extended by Ton Dietz.