

# Makerere University as a Flagship Institution: Sustaining the Quest for Relevance

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## INTRODUCTION

Makerere University is an interesting case of a traditional university in sub-Saharan Africa. Such universities were established as both national and regional symbols with the main objective of human resource capacity development. Makerere University transformed from a colonial university to a nationalist university, and is, at present, a neoliberal university (Eisemon, 1994; Mamdani, 2008; Musisi, 2003; Obong, 2004). At each stage of transformation of Makerere University as a flagship institution, emphasis on capacity building for human resources, research productivity to contribute to socioeconomic development, and policy development has been evident. This chapter explores those dimensions, as well as such internal processes and dynamics as student enrolment, financing, leadership and governance, and the state of the university's infrastructure. Overall, this chapter studies the contribution of Makerere University to

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the knowledge economy through undergraduate and graduate training, research, and policy formulation.

The major sources were a review of literature on the university as it relates to the phenomena studied; analysis and interpretation of documents (including reports, strategic plans, and university fact books); discussions with the academic and administrative staff; and finally, seminars to present and discuss the findings with the goal of enhancing the study's validity and reliability.

## BACKGROUND

### *History of Uganda's Higher Education System*

The establishment of Makerere College in 1922 marked the beginning of higher education in Uganda and the East African region (Ocitti, 1991). Makerere University was established as a technical college to serve the British East African territories of Kenya, Tanganyika, and Uganda. The history of Uganda's higher education system has been divided into five periods: 1922–1950, 1951–1961, 1962–1970, 1971–1992, and 1993 to the present (Musisi, 2003). These periods can be further categorized as colonial, national, and neoliberal phases of university development (Mamdani, 2008). Apparently, emphasis during the colonial phase was given to developing human resources to serve as assistants to the colonial experts, providing certificate courses in agriculture, carpentry, motor mechanics, teacher training, and medical care among others.

It was not until after the 1949 Asquith Report that Makerere University College became affiliated with the University of London. At this time, the college started offering degree-level courses. Subsequent periods during the colonial era (1951–1961) were characterized by the Africanization of the civil service. In fact, following the Binns Commission (1951) and the De Bunsen Commission (1953), students from Makerere College obtained degrees from the University of London in 1953.

It was in 1962 that the idea of a national university gained ground following the granting of independence to Uganda. Indeed, "a national university . . . became an obligatory sign of real independence," and in certain instances such universities were designed to serve an entire region (Mamdani, 2008, p. 5; Musisi, 2003, p. 614). Driven by the need to produce skilled labour for post-independence economic growth, new

fields of learning such as technology, forestry, law, and commerce were also introduced (Eisemon, 1994, p. 88).

The University of East Africa was founded with the Royal Technical College in Nairobi, the University College of Dar es Salaam, and Makerere College as its constituent colleges (Musisi, 2003). Nevertheless, due to nationalist pressures, the University of East Africa was dissolved in 1970, resulting in independent and fully fledged national universities in the three East African countries. In Uganda, Makerere University and the entire higher education system were adversely affected by political, social, and economic upheaval from the 1970s until early 1990s. This unrest was compounded by two challenges: the shift in emphasis from higher education to lower levels of education by the World Bank and other donors, and the increase in social demand for higher education (Musisi, 2003).

Certainly, following World Bank sanctions and policies on deregulation, privatization, and liberalization, the neoliberal university evolved in 1992 and has continued to prevail. Emphasis has been on reviewing the old curriculum and drafting new curricula to respond to the demands of the labour market, since national economies were also rapidly changing and placing new demands on higher education. The neoliberal university has contributed to an increase in access to higher education among other merits, but it has been equally critiqued regarding its general quality.

### *Current Status of the University Subsector: Expansion, Ownership, and Governance*

The era of the neoliberal university triggered considerable expansion of higher education institutions differentiated by type and ownership. According to the National Council for Higher Education (2013a), there are currently 34 universities in Uganda: 5 public and 29 private. Public universities are owned and partly funded by the government. They are Makerere University (1922), Mbarara University of Science and Technology (1989), Gulu University (2002), Kyambogo University (2002), and Busitema University (2007). Moreover, there is also a public other-degree-awarding institution—Uganda Management Institute (1969).

Private universities are owned by individuals, organizations, and communities and may be stratified as (a) private for profit, (b) private not for profit (religious), and (c) community—founded by communities and/or cultural institutions. They are Islamic University in Uganda (1988), Ndejje University (1992), Uganda Martyrs University (1993), Bugema University

(1994), Busoga University (1999), Nkumba University (1999), Uganda Christian University (1997), Kampala University (2000), Kampala International University (2001), Aga Khan University (2001), Kumi University (2004), Kabale University (2005), Mountains of the Moon University (2005), African Bible University (2005), Uganda Pentecostal University (2005), Bishop Stuart University (2006), St. Lawrence University (2007), Muteesa I Royal University (2007), All Saints University, Lango (2008), International Health Sciences University (2008), African Rural University (2011), Islamic Call University College (2011), Livingstone International University (2011), Cavendish University (2008), International University of East Africa (2010), Victoria University (2010), St. Augustine International University (2011), Virtual University of Uganda (2011), and Uganda Technology and Management University (2013). Similarly, there is a private other-degree-awarding institution—Team Institute of Business Management (2010).

As provided for in the Universities and Other Tertiary Institutions Act (UOTIA) 2001 (Republic of Uganda, 2001), the National Council for Higher Education (NCHE) is the regulatory body that issues licenses of operation to private universities and also recommends to the Minister of Education the establishment of a public university (see also National Council for Higher Education, 2006a, b). The NCHE currently accredits all academic programmes and courses offered by all universities in Uganda. In the same way, governance of higher education in Uganda is based on the UOTIA 2001, the first legal framework for the entire higher education sector in Uganda. The purpose of the act is to streamline the system of governance of higher education and standardize the academic provisions of the higher education institutions in Uganda. More specifically, this legal instrument provides a regulatory framework for the establishment and management of higher education institutions (Republic of Uganda, 2001, p. 10). It is this legislation that has created a fundamental departure from direct state steering of higher education by the government to granting the institutional autonomy of public universities. Nevertheless, a Department of Higher Education within the Ministry of Education and Sports (MoES) is mandated to monitor and supervise the running of public universities and provide the policy frameworks within which university governance functions. At the institutional level, the 2001 act (as amended) gives universities autonomy, reducing ministerial power in the governance of public universities. Moreover, the legislation authorizes the inclusion of internal and external stakeholders in university governance.

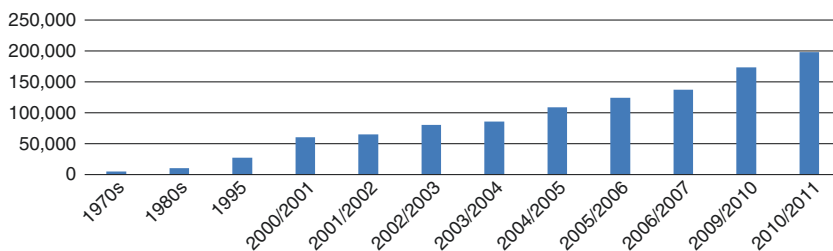
### *Current Enrolment, Quality, Equity, and Access*

The past three decades have witnessed an increase in higher education enrolment. As shown in Fig. 11.1, increase in enrolments was more significant in the mid-1990s to early 2000, perhaps due to the inception of private sponsorship at Makerere University in 1992. In fact, there was an annual increase in enrolments of 12% in the period 1994–1999, and Kasozi (2002) has projected a rise of 92% in enrolments for 2008–2015 (pp. 127–128).

In the context of university education, different categories of students are admitted to the university. These include: (a) Students sponsored by the government who can be further divided into students on national merit, students on district quota, disabled students, and talented students, and (b) students admitted under the Inter-University Council for East Africa exchange programme for universities in Uganda and Tanzania.

The enrolments can be stratified into humanities and science/technology fields. Importantly, enrolment in the humanities is much higher than in the science and technology fields, standing at 74% and 26% in 2010–2011, respectively (National Council for Higher Education, 2013b).

As enrolments have risen due to new academic programmes and universities, the demand for academic staff has risen in equal measure. Unsurprisingly, Makerere University has the highest concentration of qualified staff holding doctorates, some of whom also teach in private universities. This stretching of human resource capacity constrains quality in teaching and research, as the limited number of qualified academic staff shoulder large workload assignments.



**Fig. 11.1** Growth in enrolment in Uganda's higher education system

One important feature is that, in Uganda, public universities and institutions have been regionally located on the basis of equity and access to higher education, with Mbarara University of Science and Technology being established in the west, Gulu University in the north, and Busitema University in the east. Even with this dispersion, access still operates on a merit-based system with the result that most students who enrol are not necessarily drawn from within the respective regions (Kwesiga & Ahikire, 2006). Additional changes related to equity have entailed affirmative action; female undergraduate students are automatically assigned 1.5 bonus points after the normal weight of the points earned is calculated for their admission portfolios. This bonus naturally improves their likelihood of achieving admission. Moreover, to address regional inequality, student quotas for entry to university were allocated to various districts (local administrative entities) to increase access especially in “disadvantaged” or “hard-to-reach” districts.

*Academic Staff Profile: Recruitment, Turnover,  
Salary/Benefits, Mobility*

The profile of the academic staff in Uganda’s higher education subsector is as diverse as it is uneven. As illustrated in Fig. 11.2, it is evident that the quality and number of academic staff that presumably impact on research and publication output—the PhD holders—is comparatively low. This category has perennially constituted an average of 10–11% of the total number of academic staff in higher education institutions since 2004.

The number of PhD holders in Uganda is estimated at 1,000, of which 60% are employees of Makerere University (Uganda National Council of Science and Technology [UNCST], 2011). Similarly, over 40%, or the largest segment of the academic staff, hold master’s degrees, suggesting prospects for progression to doctoral studies. However, it can also imply that the impacts of staff development programmes have not yet been realized or that the turnover of PhD holders is very high. Some of the private universities have limited funding for staff on study leave and prefer to recruit permanent employees (including PhD holders) from other universities, for example Makerere (UNCST, 2011, p. 11). It is important to note that recruitment requirements differ from university to university. For instance, whereas a master’s degree holder can be offered employment as a lecturer in some universities, at Makerere University, a PhD is the minimum requirement for all fields but clinical sciences and the fine arts.

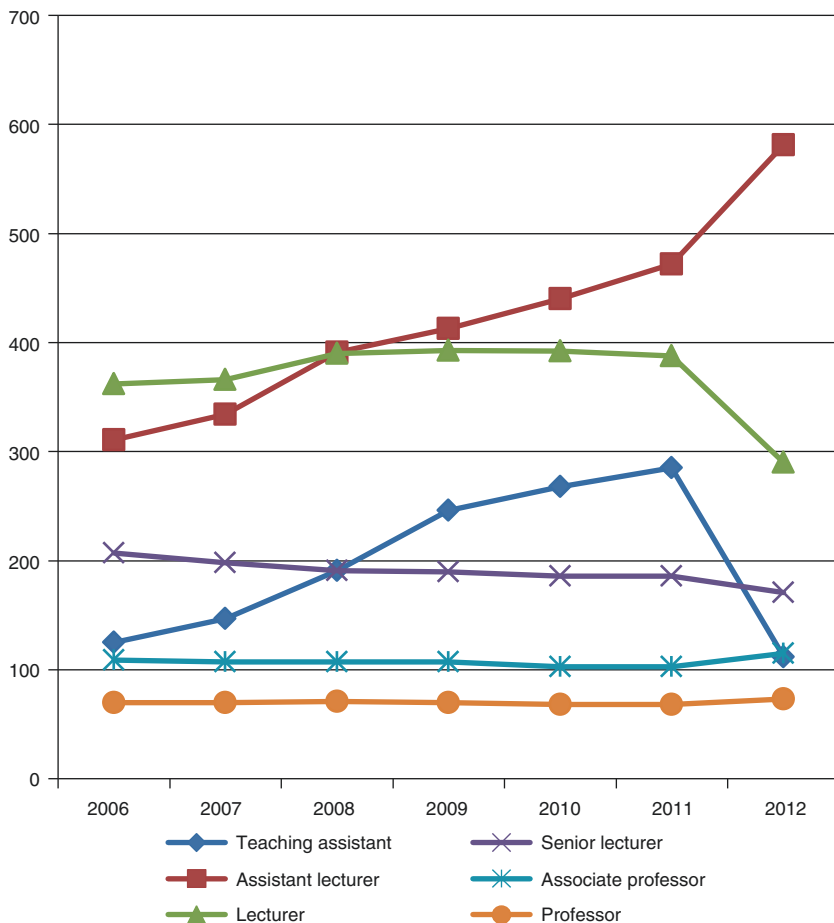


Fig. 11.2 Academic staff trend by rank 2006–2012

Apparently, salaries and benefits for the academic staff are still meagre, and recent studies have shown that PhD holders involved in a research career at university are highly dissatisfied with salaries and benefits (UNCST, 2011). With respect to mobility, over 60% of the doctoral holders have not stayed abroad for academic engagements as exchange faculty or studies in the last 10 years according to UNCST (2011). This stability is related to

the fact that 53% of Uganda's PhD holders have been trained at Makerere University and have perhaps not established strong international networks that would encourage mobility.

### *Funding Patterns: Source, Modalities, and Policies*

In congruence with the global patterns of declining or inadequate funding for the higher education sector from governments, similar or even more severe trends are noticeable in Uganda. There are three main sources of funds for higher education: (a) government, (b) private (tuition and other fees), and (c) donors (development partners). Of these sources, donor funds and funds from tuition fees have significantly contributed to development of higher education in Uganda. Government funds are allocated to public universities and other tertiary institutions.

Apparently, there are no concrete guidelines in allocating funds to higher education (Musisi & Nakayiwa-Mayega, 2010). Interestingly, the UOTIA 2001, that has been considered internationally comparable (Saint, 2010, p. 20), remains implicit on the allocation of funds by government to public universities. Within the circumstances, allocations are based on criteria such as previous allocation patterns, an institution's size, and its needs.

Within government, the allocation of funds is classified into (a) government subvention; (b) line item funding; and (c) project financing for newly established universities. Government funding has been split into two categories: recurrent allocations and development budget allocations. The recurrent budget is financed through a block grant or subvention from the MoES, based on the number of students on government scholarships and estimations of unit cost per student. Disbursements are then made to the public university to finance its budget. The subvention from government is mainly used to pay staff salaries, provide university amenities, and ensure the welfare of the students (Liang, 2004, p. 68; Musisi & Nakayiwa-Mayega, 2010). Procedurally, funds from government are disbursed through the MoES and the Ministry of Finance, Planning, and Economic Development but with little, if any, consideration for what the public universities actually propose and submit as their budgets (Liang, 2004, pp. 74–75; Musisi, 2003, p. 619). The government allocations are supplemented by the tuition fees paid by privately sponsored students (Musisi & Nakayiwa-Mayega, 2010).



### *Reflections on Systemwide Trends in Higher Education*

The expansion of Uganda's higher education landscape has been unprecedented in terms of both institutions and enrolments. Whereas there has been significant growth in private higher education institutions, public higher education institutions still dominate in terms of enrolments, partly because the development of private higher education in sub-Saharan Africa is recent. It is important to note that affirmative action in public higher education may help account for the increase in enrolment.

Another landmark is the need for PhDs. It is clear that the number of PhD holders has been increasing during 2004–2011; but given the importance of research in national development, the demand for PhD holders in Uganda will remain high. Funding has perennially negatively affected higher education in terms of allocation, adequacy, and consistency. Systematizing the funding to higher education would improve the operations of the university in terms of teaching, research, and community engagement. It can be argued that, given the position of Makerere University as the flagship university and the dire need for PhD holders, it is imperative that special funds be earmarked for capacity development. Last but not least is the increasing emphasis on quality evident in the establishment in 2002 of the NCHE and the emphasis on accrediting all academic programmes offered by Uganda's higher education institutions.

## MAKERERE UNIVERSITY: THE FLAGSHIP UNIVERSITY

### *Historical Background*

Makerere University was established as a technical school in 1922 and is one of the oldest and most prestigious universities in Africa. By 1924, Makerere University was not only Uganda's institution but was growing to serve the region of East Africa (Eisemon, 1994, p. 88). As it expanded in size and diversified its academic provisions through the periods of colonial, nationalist, and neoliberal development, Makerere University was affiliated with the University of London in the 1950s and the University of East Africa in the 1960s. When the latter disintegrated in 1970, Makerere University emerged as an independent national university of Uganda.

The Makerere University Act 1970 was the legal instrument that subordinated the university to state control. Certainly, the variations in state

supremacy as a restraint to academic freedom and autonomy in the university sector are apparent in an analysis of the legal frameworks between 1930 and 1975 (Eisemon, 1994; Oloka-Onyango, 1992). It is the new UOTIA 2001 that gives universities substantial autonomy, while reducing ministerial power in the governance of public universities through issuing directives “in the national interest” (Liang, 2004; Mayanja, 2001).

After the 1992 White Paper, Makerere University transitioned from a purely public to a public-private university by admitting students on a private sponsorship scheme. The management capacities prior to the public-private mix were not adequate for ensuring the responsiveness of the academic units and the university. On that basis, a strategy of decentralizing academic and financial management was adopted to accelerate adaptation (Clark, 2004, p. 105; Court, 2000; Epelu-Opio, 2002; Kasozi, 2002; Mamdani, 2007, p. 175; Mayanja, 2001). As a result, some departments evolved into institutes and institutes into faculties directly responsible to the central administration (Mamdani, 2007, pp. 183–184). At the same time that new academic programmes were being introduced and existing ones revised, Enrolments increased (Musisi & Muwanga, 2003, p. 33). New academic management structures of deputy deans were created, and administrative roles were also diffused to the academic units (Bisaso, 2010, p. 348).

In 2011, as part of the restructuring process to improve service delivery, quality, and effectiveness, Makerere University transformed from a faculty-based to a collegiate university comprising nine constituent colleges and one school. These are College of Engineering, Design, Art and Technology; College of Health Sciences (CHS); College of Business and Management Sciences (CoBAMS); College of Education and External Studies; College of Natural Sciences; College of Agricultural and Environmental Sciences; College of Veterinary Medicine, Animal Resources and Bio-Security; College of Humanities and Social Sciences (CHUSS); the College of Computing and Information Sciences; and the School of Law. The colleges and the School of Law are headed by principals.

### *Governance, Leadership, and Management*

Until the beginning of the 2000s, higher education institutions were under strict state control. The most noticeable changes in university legislation occurred between 1930 and 1975, typified by excessive direct involvement of the government (Oloka-Onyango, 1992). It was the UOTIA 2001, which became operational in 2003, that granted

institutional autonomy to the universities. Indeed, the law empowers the universities to determine their institutional leadership and to manage their academic, administrative, and financial affairs. The chancellor is a titular head with no executive powers. In addition, there are several hierarchical management positions including the vice-chancellor as executive head, with two deputies (one for academic affairs and the other for finance and administration), a university secretary, an academic registrar, a university bursar, principals of constituent colleges, deans of schools, chairs or heads of departments, and administrative staff within the different university units.

Evidently, Makerere University operates a hybrid structure of governance, leadership, and management with centralized and decentralized arrangements. The University Council is the supreme decision-making organ of the university led by a council chairperson while the University Senate, chaired by the vice-chancellor, is the top academic body. Following legislative changes, internal and external stakeholders include academic staff, administrative staff, the private sector, ministries of education and finance, local governments, and alumni and student representatives (Court, 2000), either appointed or ex-officio or elected (Olum, 2004; Republic of Uganda, 2001, pp. 30–32).

In the decentralized set-up, college and school boards are the highest decision-making bodies at the college level. In addition, there are specialized committees such as the college finance committees responsible for college budgets; college appointments and promotions committees that make recommendations to the university appointments board, and a college and school research committee; and higher degrees committee for postgraduate matters among others.

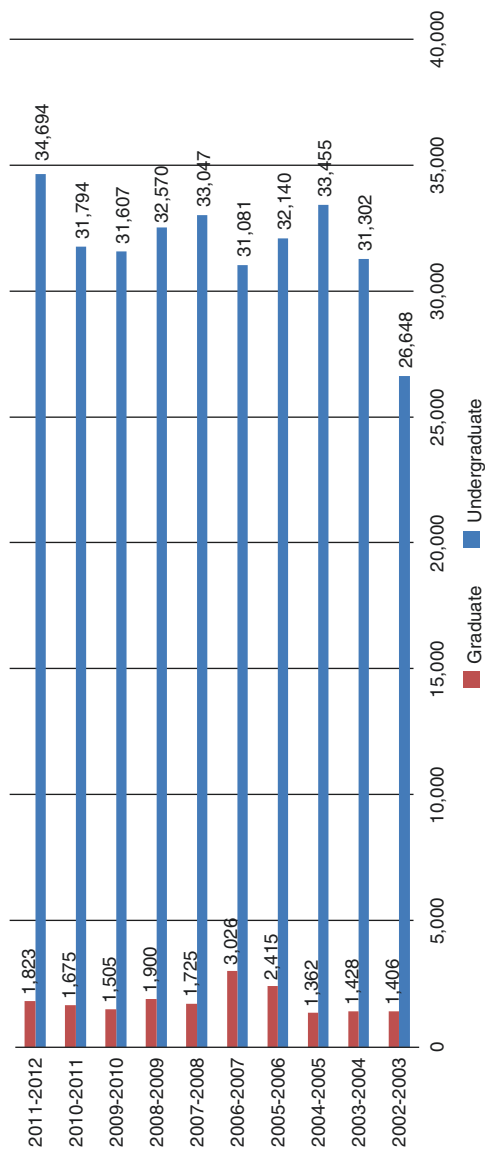
At the strategic level, Makerere University has sought to reposition itself with its vision statement: “to be the leading institution for academic excellence and innovations in Africa,” and its mission statement: “to provide innovative teaching, learning, research, and services responsive to national and global needs” during the current strategic period 2008–2009 to 2018–2019 (Makerere University, 2008a, p. 12). Three pillars have been identified. First is learner-centeredness with a focus on cultivating not only traditional academic skills in graduates but also generalist skills “necessary to compete in the dynamic labour market of knowledge-driven economies of the world.” The second pillar is being a research-driven university in which research and teaching should be mutually reinforcing. It must be noted that Makerere University is one of the oldest

universities on the continent and is therefore positioned to provide leadership in research in Uganda. By producing relevant knowledge, Makerere University will increase its relevance by contributing to the growth of the country's economy. Knowledge transfer, partnerships, and networking constitute the third pillar. The university has steadily shifted from an outreach paradigm to knowledge transfer, partnerships, and networking on the premise that knowledge sharing between Makerere University and the private and public sectors will accelerate knowledge uptake, translation, and utilization for community development. Recent developments show that the increase in the demand for accountability, efficiency, and effectiveness has necessitated the creation of institutional management structures. Indeed, several directorates have been set up to coordinate academic (quality and research), financial, and human resource-related matters in the university. These include the Directorate of Quality Assurance, the Directorate of Research and Graduate Training, the Directorate of Internal Audit, Directorate of Investment, Directorate of Human Resource, and the Directorate of Information and Communication Technology Support.

### CURRENT ENROLMENT

Enrolment at Makerere University has shown an uneven pattern at both undergraduate and graduate levels. The apparent increase in undergraduate enrolment is partly because of the public-private mix in which a large percentage of fee-paying students participate (Fig. 11.3).

In the period 2008–2009 to 2010–2011, a relative decline in enrolment occurred at the undergraduate level with fluctuations at the post-graduate level. This was partly an institutional response to the declining quality standards that had been caused by the limited facilities in the case of undergraduate students and inadequate capacity for supervising graduate students (Carrol, 2007, pp. 86–88; Court, 2000, p. 12; Musisi, 2003, p. 619; National Council for Higher Education, 2006a, pp. 1–2). It is also important to note that the proportion of graduate students in relation to the undergraduate students is embarrassingly low. This discrepancy clearly shows that, whereas Makerere University is a flagship university and is indeed responsible for building capacities at the newer universities in Uganda and beyond, emphasis on graduate studies is still less evident.



**Fig. 11.3** Enrolment trends for 2002–2003 to 2011–2012

Source: Makerere University (2012b)

### *Graduation Output*

Until the late 1980s, Makerere University was the only university in Uganda that produced graduates at the level of bachelor's, master's, PhD's, and other levels including diploma and postgraduate diploma. Focus in this section will be on the period 2000–2012 and specifically on the bachelor's, master's, and PhD levels.

The number of PhD graduates has risen from eight in 2000 to over 40 in 2012. The implication is that the university still has to improve its graduation output, given the enrolment figures at graduate level. Furthermore, Makerere University's extensive history would lead to the expectation of a slightly higher level of PhDs awarded. Admittedly, the number of master's-level graduates is comparatively low, registering 249 graduates in 2000 and 1,096 in 2012. These figures suggest a promising future for possible doctoral candidates admitted to the various disciplines at the university. Interestingly, even as the university purposes to become a research-led university by 2018–2019, graduation output is dominated by bachelor's degrees that oscillate between 10,000 and 12,000 graduates in 2008–2012—a commendable leap from 3,736 graduates in 2000.

The huge output at the bachelor's level partly stems from the introduction of private-sponsored degree programmes that were flexibly delivered during days, evenings, and weekends as well as by distance learning. Certainly, Makerere University has been and remains the leading producer of graduates from a range of disciplines for the country since the 1970s when it became an independent university after the disintegration of the University of East Africa.

### STATE AND PROFILE OF THE ACADEMIC AND RESEARCH STAFF

In 2012, Makerere University had a total of 1,342 academic staff of whom only 73 (5%) were professors, 115 associate professors (8.5%), 171 senior lecturers (13%), and 290 lecturers (22%). This means that many of the academic staff are at the rank of assistant lecturer (581) (43.2%), while teaching assistants numbered 112 (8.3%). This statistic was a decline from a total of 1,502 academic staff in 2011, which may have resulted from staff turnover and the scrapping of the position of teaching assistant. This new policy caused a drastic decline as illustrated in [Table 11.1](#), since there was no more hiring of first-degree holders for teaching positions.

**Table 11.1** Academic staff profile by qualification (2004–2011)

<i>Year</i>	<i>PhD</i>	<i>Master's</i>	<i>Bachelor's</i>	<i>PGD</i>	<i>Diploma</i>	<i>Certificate</i>	<i>Total</i>
2004	549	2,221	1,715		684	80	5,249
2005	558	2,167	1,694	153	611	75	5,258
2006	746	2,651	1,949	224	772	123	6,465
2010	858	2,967	2,621	209	734	480	7,785
2011	914	3,657	2,923	269	748	191	8,594

*Source:* Uganda National Council of Science and Technology (UNCST, 2011)

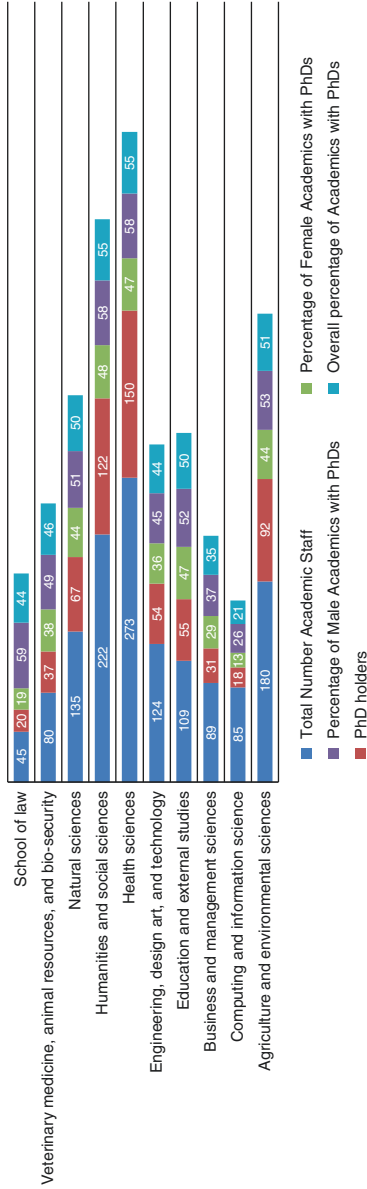
Overall, the implication is that the assistant lecturers are expected to upgrade through doctoral training and research. However, senior academic staff at the rank of associate professor and professor are few, limiting the university's capacity to offer strong graduate research supervision. Doctoral candidates enrolled at Makerere University include not only staff members but also academic staff from higher education institutions in Uganda and other national agencies.

With respect to the number of PhD holders according to college and gender, Fig. 11.4 shows that at least 50% of the academic staff at the College of Agriculture and Environmental Sciences, College of Education and External Studies, CHS, College of Humanities and Social Sciences, and the College of Natural Sciences are PhD holders. But it is still contestable whether the number of PhD holders may translate into an improved research profile and productivity for the university.

In terms of gender, the College of Computing and Information Science, the CoBAMS, and the School of Law have the lowest percentage of female PhD holders across the academic units at Makerere University.

### *Academic Training and Staff Development*

Given the challenge of academic staffing over the years, development has been a key human resource component at Makerere University. Academic staff development is anchored in the university staff development policy which stems from the requirement that the PhD qualification is the minimum requirement for all academic staff. This policy implies that the positions of assistant lecturer and teaching assistant are basically training grades for academic staff. By 2013, more than 300 academic staff were engaged in development activities—over 70% of that number in doctoral degree studies.



**Fig. 11.4** Proportion of academic staff with PhDs in college by 2012–2013

Source: Makerere University (2013c)



Given the importance of staff development, the university has established a staff development fund, which is used to encourage staff development. A considerable share of the staff development has been funded through international organizations, through scholarships offered by individual external universities, through bilateral support under the institutional development programme, and through American-based foundations.

Specific institutional development programmes—for example, by the Swedish International Development Cooperation Agency (Sida)—since 2000 have contributed to the staff development of 230 PhDs, 106 of whom had graduated by 2013, and 77 master's degrees. Since 2002, 23 postdoctoral research teams in the health, agriculture, social sciences, and mass communication have also been funded by Swedish Development Agency (Sida). With funding from the Carnegie Corporation of New York (CCNY), Makerere University has been implementing a two-year project focused on building, nurturing, and retaining the Next Generation of African Academics (NGAA) (October 2010 to December 2012). The support was extended to 42 PhD candidates and 77 master's degree students, and six postdoctoral research teams. Carnegie Corporation also funded 43 travel grants to present research findings at international conferences. In addition, a total of 216 academic staff participated in training related to research management, scholarly writing, and communication skills. Apparently, the funding for the NGAA initiative has been extended to improve doctoral training and research in the CHUSS. The Cambridge Africa Partnership for Research Excellence focusing on postdoctoral research in the humanities and the social sciences is in its second year. Other notable funding has come from the Government of Norway (NORAD (Norwegian Agency for Development Cooperation)/NUFU), Rockefeller Foundation, and the Netherlands Organization for International Cooperation in Higher Education (NUFFIC) among others (Makerere University, 2013d).

### *Mobility Including Brain Drain/Brain Circulation*

There is evidence of mobility of Makerere staff through resignations, retirement, and recruitment. According to Natukunda (2012), over 50 members of the academic staff quit Makerere University in 2010–2012, citing low pay and excessive workloads. The most affected fields were mass communication, health sciences, business and management, and computing and information technology. These fields still continue to be affected by turnover. Some of these academics have joined the private sector and

international organizations like the Commonwealth Secretariat and the Commonwealth of Learning. Still others have been posted on secondment to lead taskforces to establish new public universities in Uganda. Other leading experts have left Makerere University to work in universities in Rwanda and South Africa where the pay is much higher.

Conversely, there are traces of brain circulation. For instance, since the early 2000s, over 200 doctoral graduates have benefited through the sandwich and single-site modes of study funded by the Swedish Development Agency (Sida). Indeed, no student/researcher has stayed in Sweden because of the sandwich structure of the programme. In the same way, some eminent Ugandan scholars like Professor Mahmood Mamdani have returned to spearhead research and innovations at Makerere Institute for Social Research. Overall, the nature of staff development has ensured that staff mobility does not result in or facilitate brain drain in the fields of health sciences, agricultural sciences, technology, and the social sciences despite the effects of the staff turnover.

### *Salary, Benefits, and Staff Productivity*

One of the perennial causes of academic staff attrition at Makerere University has been low salaries and meagre benefits. The current salaries were last increased in 2007–2008 so that the monthly pay became Shs. 3,026,895 (US\$1,207) for professors, Shs. 2,899,928 (US\$1,157) for associate professors, Shs. 2,457,776 (US\$980) for senior lecturers, Shs. 2,099,467 (US\$837) for lecturers, and Shs. 2,062,761 (US\$823) for assistant lecturers. These salaries are low in comparison with salaries earned by the university academic staff in the East African region (Makerere University Council, 2013). It was not until August 2013 that the Makerere University Council resolved to enhance salaries by providing a monthly incentive of 70% of each employee's salary. This decision followed a strike by the academic and nonacademic staff during which they demanded a 100% increase, but this proposal was greeted cautiously by university management. Accordingly, the deputy vice-chancellor in charge of finance and administration advised:

As we debate the possibility of the University enhancing our salaries by 100%, please note that the University last year raised a total of Shs. 101 billion from Appropriation In Aid (AIA) (including tuition fees, application fees etc.). Currently the total wage bill is Shs. 75 billion, so increasing

salaries by 100% would require Shs. 75 billion. Already, the University is contributing 33bn to the wage bill, which leaves a balance of 68bn from the AIA. (email to academic staff mailing list, August 17, 2013)

Apparently, there have been concerted efforts to translate the incentive into part of a consolidated salary, but this effort failed since the incentive was paid from funds internally generated by the university and would certainly require the sanction of the government line ministries. Indeed, the deputy vice-chancellor in charge of finance and administration notes: “I am in support of the proposal that we start negotiations with Government immediately, so that Government takes over the wage bill 100 per cent” (personal email to author, October 26, 2013). With this scenario, the need is evident for additional motivation to retain talented academic staff at Makerere University after they graduate with doctoral degrees. This is because their expertise is in high demand by both the public and private universities within the country (Kasozi, 2014). The Makerere University Council (2013) has also recommended salary enhancement on the premise that academic staff can opt to work at home if their remuneration is commensurate to the service rendered.

### *Academic Promotion*

Academic promotions are based on established criteria as articulated in the “Policy on Appointment and Promotion of Academic Staff, 2006 as amended 2009.” If promotion to the next rank is prestigious, then academic promotion could perhaps be one of the remaining avenues for retaining the talented academic staff at Makerere University as evident from the foregoing analysis. Promotion may compensate for the low salaries and benefits.

However, the policy on appointments and promotion had put much emphasis on research output as measured by the number of publications and less on the other core functions of the university—namely, teaching and community engagement (Nakabugo, 2008). Consequently, several changes were proposed, including the abolition of the “New Entrants’ Scheme” which did not focus equally on all three missions of the university. Emphasis has now been put on teaching as well. For instance, applicants for promotion to associate professor must have 5 years of actual teaching experience and should have served as a senior lecturer for at least 3 years. To become a

professor would require 7 years of actual teaching experience, two of them at the rank of associate professor. However, even prior to the changes, Natukunda (2012) notes that one reason given for turnover or brain drain was the inadequate and/or lack of reward through promotion. Thus, it is highly likely that turnover may increase if the young academics envision the changes in the policy on appointments and promotion as a stumbling block to rising in academic ranks. Moreover and interestingly, while Makerere University is repositioning itself as a research-led university, the current emphasis on the number of years of actual teaching experience seemingly relegates it to a teaching university. At the same time, it is debatable whether years spent teaching are a sufficient measure for better quality of teaching or better professorship. Still, after reports that some members of the academic staff hardly teach throughout the semester, the University Council, at its 130th Meeting, held February 19 and 21, 2014, tasked University Management to develop a mechanism for reviewing and appraising staff performance and effectiveness.

### *Academic Freedom/Autonomy*

Changes in legislation in Uganda's higher education shed light on the variations in state supremacy that were a restraint to academic freedom and institutional autonomy in the university sector. Indeed, Oloka-Onyango (1992) extensively explains the aspect of legal control in tertiary institutions in East Africa since colonial times. The 2001 Act gives universities substantial autonomy and reduces ministerial power over university governance (Liang, 2004; Mayanja, 2001). The 2001 Act builds on the White Paper of 1992, which recommended continuity in academic freedom with respect to student selection, appointment of academic staff, the teaching content, selection of areas of research, and dissemination of research results. In the same vein, public sector reforms in higher education have led to the development of curricular reviews, privately sponsored students, and legislative changes granting increased institutional autonomy in the 1990s.

### *Productivity by Graduating Students*

As measured by the number of graduating students, productivity varies across disciplines. Table 11.2 shows trends in graduation. The greatest number of graduates is in the humanities, compared to science and business. Obviously, this result is a direct consequence of relatively low

**Table 11.2** Makerere university graduation by category 2003/2012

<i>Category/Year</i>	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Diploma	111	227	284	356	415	386	231	272	209	385
Bachelor's	4,786	6,976	7,244	9,372	8,358	10,603	11,097	12,192	12,884	9,806
Postgraduate diploma	182	281	162	267	287	207	130	95	42	18
Master's	348	466	470	686	652	828	878	1,244	1,280	1,096
Doctorate's	12	21	21	25	19	23	30	39	55	42
<b>Total</b>	<b>5,439</b>	<b>7,971</b>	<b>8,181</b>	<b>10,706</b>	<b>9,731</b>	<b>12,047</b>	<b>12,366</b>	<b>13,842</b>	<b>14,470</b>	<b>11,347</b>

*Source:* Graduation Booklets by calendar year

enrolments in science-based undergraduate and graduate programmes. But since the academic year 2006–2007, the number of students graduating from the science fields has trended upwards. Among the reasons could be changing demographics, the introduction of various attractive fields like information and communication technology, and the political decision to increase intake of government-sponsored students, especially in science-based programmes.

Overall, in the period between 1999–2000 and 2009–2010, graduates from the humanities almost tripled as shown in the rise from 2,635 to 7,065 graduates. In contrast, the business field has generally oscillated between a low of 585 in 1999–2000 and 1,000 in 2009–2010.

## RESOURCES

### *State of External and Internal Funding*

Like most higher education systems in sub-Saharan Africa, public universities such as Makerere University operate under stringent resource constraints characterized by limited government funding. However, Makerere University has benefited significantly from external funding awarded by development partners, mainly to support research for individual academic staff and departments.

As illustrated in [Fig. 11.5](#), the Swedish International Cooperation Agency (Sida), the NORAD, and the Partnership for Higher Education in Africa have been some of the major funding agencies for research at Makerere University. Others have included such American foundations as Rockefeller and CCNY. Funding agencies with relatively low million-dollar investments include the Millennium Science Initiative, which is jointly funded by the Government of Uganda and the World Bank, the African Capacity Building Foundation, and the International Development Research Centre. Obviously, many other development partners or donors support different initiatives at Makerere University; but this chapter refers only to awards in millions of dollars.

As a neoliberal university, Makerere University receives a substantial amount of funding in the form of tuition fees paid by students in privately sponsored programmes. In fact, private funding has exceeded government funding since 2002–2003 (Makerere University, [2013c](#), p. 53).

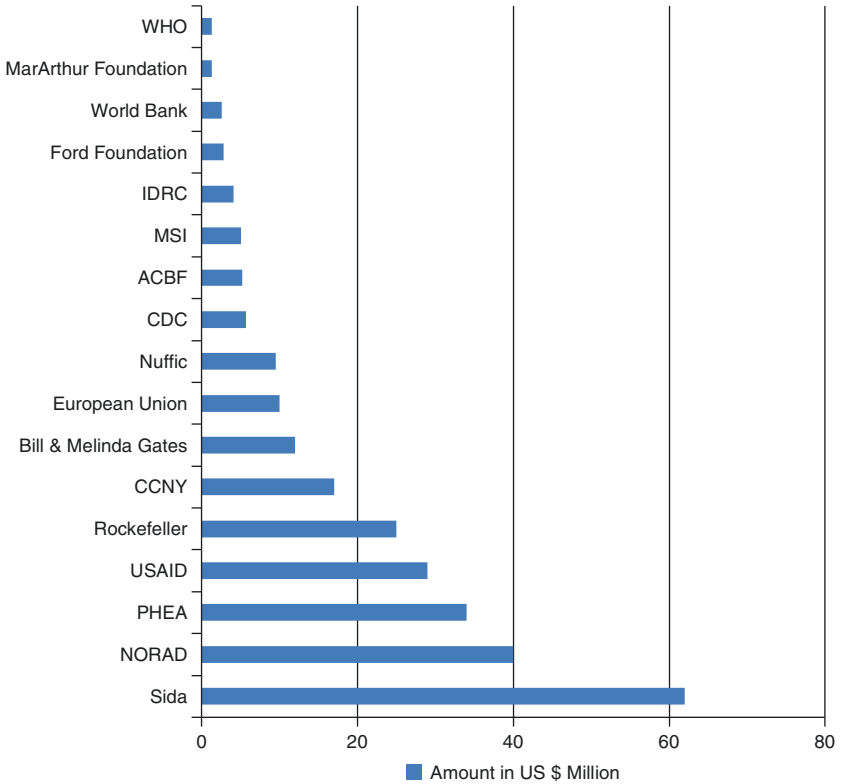


Fig. 11.5 Research funding by the development partners in US dollars

*Laboratories*

Makerere University has a total of 11,213.21 square metres of laboratory space situated as follows: 3,469.77 square metres in the College of Natural Sciences, 2,975.77 in the College of Agriculture and Environmental Sciences (CAES), 1,759.75 in the College of Veterinary Medicine, Animal Resources, and Bio-Security, 1,031.58 in the CHS, and 159.02 in the College of Education and External Studies (for science education subfields) (Makerere University, 2013c, pp. 48–49). With the increase in student intake for science-based fields, this space calls for expansion.

### *Libraries*

Regarding library resources, the main library has a seating capacity of 2,800. There are nine branch libraries within colleges and a library in the School of Law. The Albert Cook Library for the College of Health Sciences and the Makerere Agricultural Research Institute in Kabanyolo are located outside the main campus. Collectively, they house over 600,000 monographs with an annual increase of 2,500 print books and 100 electronic books and over 27,000 titles of accessible electronic journals. A book bank system is housed at the academic departmental level with over 250,000 copies of books.

As shown, library seating can accommodate only about 10% of the total student population, implying a strong need for more physical space and academic resources. Still, the university has a reasonable library resource base as it strives to become a research-led university.

### *Information and Computer Technology*

The extent of Information and Computer Technology (ICT) resources at Makerere University can be measured by computer facilities and student-computer ratios. Apparently, the CHS has the best student-computer ratio of 2:1, whereas the College of Computing and Information Sciences has the highest number of computers and the second highest computer-student ratio of three students per computer. These ratios can be attributed to the nature of the field, which requires the practical use of computers even during lectures.

Conversely, given the high numbers of students in the CoBAMS, the CHUSS, and the College of Education and External Studies, the student-computer ratio is rather low.

### *Research Output*

Whereas Makerere University has been a beneficiary of funding for research from agencies such as CCNY, Sida of Sweden, Norwegian Agency for International Development (NORAD), the Royal Norwegian Government, the Rockefeller Foundation/World Bank, Melinda & Bill Gates Foundation, and the Pfizer Foundation among others, it was only in May 2014 that the directorate of research and graduate training of the university embarked on an assessment of research productivity to ascertain



the volume of research, research outputs, research funding, and the impact of research outputs in 2000–2013. Nevertheless, anecdotal evidence from previous studies on the factors affecting staff research output shows variation across disciplinary fields or academic units (Makerere University, 2013a; Mugimu et al., 2007, 2013).

As shown in Fig. 11.6, during 2000–2006, the fields of medicine (including public health), agriculture, and veterinary medicine had the highest number of publications in refereed journals while education and economics had the lowest. The low output is perhaps linked to the neoliberal reforms of the mid-1990s during which the social science academic units concentrated more on teaching. Conversely, in 2010–2012, education started showing some progress in terms of research output, which is in tandem with the institutional aspiration of Makerere University to become a research-led university.

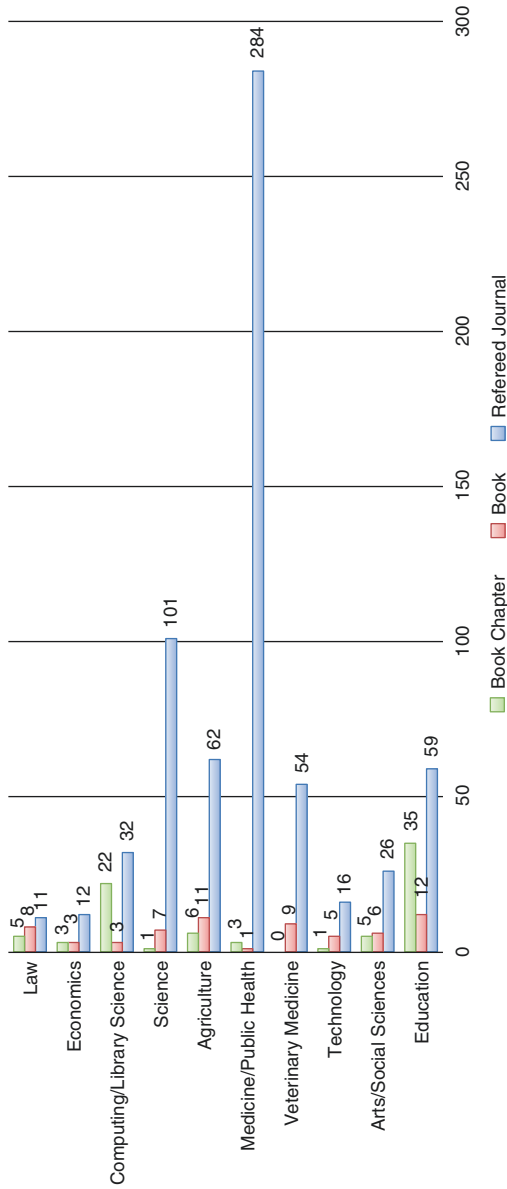
Other equally important highlights include the sustained outstanding research output in the field of medicine (including public health) as well as the inclusion of the field of law in 2010–2012. Overall, it is important to note that the statistics provided are computed from secondary data sources used to show the research output patterns across disciplinary fields. With respect to publication outlets hosted at Makerere University, a majority of these are in the science-based disciplines as illustrated in Appendix 11.1. Clearly, the presentation is based on data obtained in 2010 and therefore more journals or publication outlets could have been established since that date.

As an avenue for disseminating research findings, discipline-based international and national conferences have been organized. Examples are the 18th International Conference on Social Development hosted by the CHUSS in conjunction with Simmons College in the United States; an International Conference on Social Development (ICSD); the 7th Annual Makerere University Medical Students Association Conference on the theme of child health; the 8th Makerere College of Health Sciences Annual Scientific Conference on the theme “Health Care in Uganda: Past, Present and Future”; and others (Makerere University, 2014).

## INTERNATIONALIZATION

### *State and Standing of International/External Relations Office*

The International Relations Office (IRO) was launched in 2005 following approval by the Makerere University Council in December 2004. The IRO



**Fig. 11.6** Research output according to academic units for 2010–2012

Source: Computed from Makerere University (2013a, pp. 97–161)

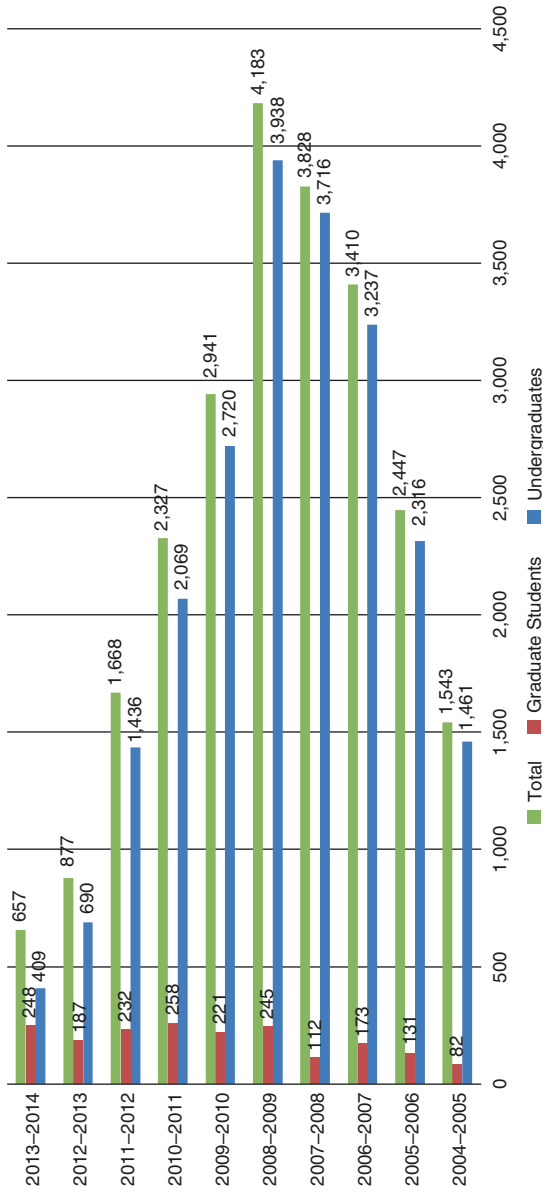
operates under the Office of the Vice Chancellor and coordinates international collaborations, partnerships, and networks. The university has identified internationalization as one of the cross-cutting issues in the current strategic period (2008–2009 to 2018–2019), despite the absence of an internationalization policy. This lack of a policy may create nonalignment between the mandate and activities of the IRO and the approach to the international dimension by the university's academic units.

Obviously, given the semi-autonomous nature of the academic units, the visibility of the IRO is quite low since it has been relegated to coordinating visits by delegations and providing support to international students. Admittedly, current trends in the enrolment of international students as shown in Fig. 11.7 suggest that the IRO has the uphill task of diversifying its activities with the aim of strengthening its profile and relevance to the whole university.

### *State of Expatriate Staff and International Students*

There are provisions in the human resource manual for hiring expatriate staff, especially honorary professors or lecturers, for a period of 2 years, renewable a maximum of once. This practice has been more evident at the CHS when compared to the rest of the university although data on expatriate staff at Makerere University were not readily accessible. As shown in Fig. 11.7, when data on international students are available, the trends in enrolment are embarrassingly worrying. The majority of the enrolled international undergraduate students come from Kenya and Tanzania. For instance, in the academic year 2008–2009, 3,649 out of 3,938 students were from Kenya and Tanzania; the parallel figures for Kenyans and Tanzanians in 2011–2012 were 1,163 out of 1,436. Most of these international students were enrolled in social sciences and humanities academic programmes.

The number of undergraduate international students increased between 2004–2005 and 2008–2009. However, since 2009–2010, the number has declined significantly, a trend that continues. One reason for the decline could be the establishment of franchise campuses in Kenya and Tanzania, augmented by aggressive marketing strategies by Uganda's private universities. With respect to the international graduate students at Makerere University, the oscillations in their enrolment figures have been more or less stable since 2008–2009. To further illuminate the data available on registered international graduate students, in 2013–2014 all



**Fig. 11.7** Enrolment of international students, 2004-2005 to 2013-2014  
*Source:* Compiled from the records of Makerere University Academic Registrar's Department (2014)

11 international doctoral candidates were enrolled as PhD candidates in the CAES in two programmes: (a) agriculture and rural innovation, and (b) plant breeding and biotechnology. At the master's level, 12 candidates were enrolled in the crop science programme with seven in the plant breeding and seed systems programme.

The CHS had 10 candidates enrolled in the master's-level programme in paediatrics and child health, while eight were candidates for a master's degree in public health and other specialized courses. In social science-related fields, the CoBAMS registered the highest enrolment (42) in its master's programme of economic policy and management with nine candidates in the master's degree of public infrastructure management programme for 2013–2014. The School of Law and the College of Education and External Studies had the lowest intake—only one international graduate student each.

### *State of Joint Regional/International Cooperation*

According to the Makerere University IRO, several joint regional/international cooperation and partnerships have been signed and operationalized over the years. For instance, 27 partnerships were initiated in 2004–2005, 18 agreements for international cooperation were signed in 2006–2007, 64 collaboration arrangements were made in 2008–2009, 36 partnerships were formulated in 2010–2011, and 25 partnerships were operational in 2012. In 2013, 19 memoranda of understanding were endorsed, including the establishment of a Confucius Institute at Makerere University in partnership with the University of Xiangtan in China (Makerere University, 2013b, 2014).

Within the framework of partnerships, the university has adopted some best practices in doctoral research and supervision. Moreover, by engaging in international curriculum development and teaching on international mobility master's programmes, comparable quality assurance standards have been enhanced. Certainly the challenge is sustainability at the end of the funding period and institutional support for the new doctoral graduates as they embark on their career paths in higher education institutions.

## CONTRIBUTION TO POLICY AND NATIONAL DEVELOPMENT

Makerere University is currently repositioning itself to address the developmental needs of the country during the strategic period 2008–2009 to 2018–2019. The university has steadily shifted from a community outreach

paradigm to that of knowledge transfer, partnerships, and networking as a strategic pillar. This pillar is anchored in such national development agendas as Vision 2040, the outgoing National Development Plan (2010–2015), and the Poverty Eradication Action Plan (PEAP).

A highlight of the previous strategic period (2000–2007) is that Makerere University deliberately embarked on addressing the developmental needs of the whole country by focusing on human resource development for the decentralized local government districts. This development entailed the revision of existing curriculum and developing new curriculum and teaching approaches for relevant bachelor's and master's programmes. Concentration was on those fields considered critical for development, namely human medicine, agriculture, computer science, engineering, and physical planning (Musisi, 2004, p. 128).

In the same vein, the university has continued to contribute to social development. For instance, Dr. Moses Musazizi at the College of Engineering, Design, Art, and Technology (CEDAT) invented cheap sanitary pads code-named MakaPads (M = menstruation, A = administration, K = knowledge, and A = affordability) made from local materials such as papyrus. Additional innovations at CEDAT have been the *Kiira EV*, the first electronic vehicle developed under the Vehicle Design Project and officially launched on November 24, 2011. Building on this earlier innovation, the project is now working on a 28-seater minibus code-named Kayoola. Within this framework, the government of Uganda earmarked Shs154 billion to build a Centre for Research in Transportation Technologies at the government industrial park in Namanve to facilitate mass production (Makerere University, 2012a, p. 11).

At the CHS, an example of a scientific breakthrough by professors has been the discovery of the Nevirapine drug that reduces the risk of mother-to-child transmission of human immunodeficiency virus (HIV) from 30% to 15%. This progress in preventing mother-to-child transmission has been replicated in other African countries (Bakibinga, 2006, p. 13; Muhumuza et al., 2005, p. 56). Related studies have focused on the early initiation of antiretroviral therapy (ART) among individuals with HIV-associated cryptococcal meningitis whose findings will elicit modification in treatment guidelines for ART initiation (Makerere University, 2014).

Additional breakthroughs have been made in the CAES. For example, disease-resistant varieties of soybeans (MAK-SOY 1 & 2 N) were discovered and planted in the eastern and northeastern parts of Uganda, and farmers growing these varieties have named them “Makerere”

(Ekwamu, 2006, p. 12). On November 25, 2013, in Entebbe, two new Makerere soybean varieties (Maksoy 4 N and 5 N) with high yield, short maturity period, and resistance to pests, drought, and diseases were released to the public by the Ministry of Agriculture, Animal Industry, and Fisheries. Moreover, 20 new sweet potato clones that are resistant to drought and viruses were unveiled in Gorooba village, Bururu parish, Kyabigambire Sub-county, in Hoima District. And finally, a new sweet sorghum variety (MUK 60) that is drought tolerant, high yielding, with a short maturity period and sweet stalks suitable for the production of food and molasses for brewing waragi (locally brewed spirits) was launched in eastern Uganda in Bukedea District (Makerere University, 2014).

Undoubtedly, individual science professors and researchers at Makerere University have worked as lead experts in decision processes related to science and technology nationally and internationally. These professors have been engaged as individuals and not as institutional experts, especially in the areas of health and agriculture research (Bakibinga, 2006; Muhumuza et al., 2005, p. 10; Wafula & Clark, 2005, p. 691). Moreover, some of the professors have also won awards at national, regional, and international levels (Makerere University, 2013a, pp. 136–137). Equally important has been the operationalization of institutional frameworks such as the Research and Innovations Policy (Makerere University, 2008c) and the Intellectual Property Rights Policy (Makerere University, 2008b) as well as organizational interface structures like the Makerere University Private Sector Forum (MUPSF) to link the university to other actors in the national economy. If fully operationalized, these arrangements could become an avenue to address the critique that the interaction between the public and private sectors, research institutions, and the university is quite weak (Bailey et al., 2011; Cloete, 2010; UNCST, 2011, p. 29, Visitation Committee to Public Universities, 2007, p. 75).

As the flagship university, Makerere's academic staff and leaders at different levels have accepted significant political appointments. Examples include the immediate former vice president of Uganda (2003–2011), Professor Gilbert Baalibaseka Bukenya, who was a dean at the Faculty of Medicine (1994–1996). Professor Apolo Robin Nsibambi was dean of the Faculty of Social Sciences (1978–1983), head of the Department of Political Science (1987–1990), and Director of Makerere Institute of Social Research (1994–1996); he then served as a cabinet minister in the Ministry of Public Service (1996–1998), next in the

MoES (1998–1999), and as Prime Minister of Uganda (1999–2011). He also served as the first non-head of state chancellor of Makerere University (2003–2007). Other prominent personalities are Professor Mondo Kagonyera, the current chancellor of Makerere University (2007–2015), who was a professor of veterinary medicine until the late 1980s. He also served as chair of the Makerere University Appointments Board (1993–1999). Further, Professor Khiddu Makubuya was a professor of law who worked in different portfolios as a minister from 1996 until 2012. In 2013, Professor Joyce K. Kikafunda was appointed high commissioner of Uganda to the United Kingdom; she had formerly served as professor of food and nutrition. Professor Lillian Tibatemwa-Ekirikubinza was appointed a justice of the Court of Appeal and the Supreme Court of Uganda. She had formerly served as professor of law and deputy vice-chancellor in charge of academic affairs (2004–2013).

Given the conditions under which political appointees operate that are often characterized by political decisions and persuasions, determining the implications and effectiveness of their new roles could be largely subjective. However, given the lengthy service in the respective portfolios of former Makerere academic staff, it seems apparent that they have made a contribution to the development of the country—and, indeed, that their performance has been acceptable to the head of state.

## DISCUSSION AND ANALYSIS

### *State of Research Capacity and Knowledge Creation*

Makerere University as Uganda's flagship university has built its capacity for research and knowledge creation over the years. Currently, research and innovation is one of the core pillars of the University's Strategic Plan (2008–2009 to 2018–2019). Research capacity at the doctoral and post-doctoral levels continues to be built through bilateral programmes and support from the Sida (Akuffo et al., 2014; Freeman et al., 2010), the Norwegian Programme for Capacity Building in Higher Education and Research for Development (NORHED), CCNY, Rockefeller Foundation, and other American foundations to name but a few (Makerere University, 2013d). Clearly, support from the government to supplement external sources remains meagre, a condition that may impede sustainability in research productivity when the external funding period comes to an end.



Evidently more than 60% of PhD holders in Uganda are employed by Makerere University. But the number of experienced and seasoned professors to mentor doctoral candidates and recent doctoral graduates is still low. Indeed, out of the 1,342 total members of the academic staff, fewer than 15% hold the rank of associate professor and above; and more than 50% of its academic staff need to have capacity building at the doctoral level.

Graduate training and output has remained low compared to undergraduate training and output. In fact, the number of enrolled graduate students in 2012 was fewer than 2,000, and only 40 doctoral degrees were awarded that year. This low level has been further compounded by the decline in the number of international graduate students, possibly because of competition from private universities and/or the lack of strong rebranding and profiling strategies by the university's IRO.

With regard to research output and innovations, the university is stratified into high and low producers of scientific knowledge in the form of peer-reviewed publications. The fields of medicine (including public health), natural sciences, and agriculture have been the most productive over the years. The low producers are the social sciences and humanities fields, hence hampering the institutional aspiration of becoming a research-led university. Even when it comes to possible dissemination outlets in the form of peer-reviewed journals and other publications hosted at Makerere University, the science-based fields dominate. It is therefore imperative to harness existing journals in the social sciences and humanities at Makerere University to respond to the challenge of greater productivity.

### *State of Training a Skilled Labour Force*

Given its rich history and profile, Makerere University has an enviable position as the first higher education institution in Uganda and the East African region. As a colonial university, its focus was on developing the capacity to train nationals who would do clerical and craftsman work. As it evolved into a nationalist university in the 1960s, the focus shifted to training citizens to take over the professional positions previously occupied by experts from the colonizing countries. The advent of neoliberal reforms of the early 1990s gave rise to the neoliberal university, resulting in curriculum reviews, flexible delivery methods, and the development of private higher education in Uganda. As the university continues its

capacity development at national and regional levels, its competitive advantage as a flagship university lies in research and innovations, since it has now built a reasonable human resource base. It continues to provide research leadership in certain specialized fields of medicine, agriculture, and technology and also continues to build the capacity of academic staff for the younger private and public universities.

It is in this vein that funding agencies such as Sida continue to emphasize that all proposals submitted for funding should clearly articulate how capacities of existing public universities will be built through collaboration with Makerere University. Such partnerships have ensured that academic staff from those universities enrol in graduate programmes at Makerere University and obtain higher academic qualifications. In addition, some of the most internationally attractive graduate programmes such as MA in economic policy and management, MA in public infrastructure management, and specialized programmes in medicine (including public health) and agriculture shed light on the extent to which academic provisions are changing with the aim of building both national and regional capacities for the public and private sectors. Moreover, programmes that are funded under Norad's Programme for Master Studies by the Royal Government of Norway have been equally instrumental in ensuring that comparable quality assurance standards are maintained in the curriculum, instructional materials, and delivery across universities in the region and beyond.

### *Policy Formulation, Development, and Shaping*

One of the surest ways to contribute to policy formulation by Makerere University has been through the involvement of individual professors and researchers especially from the fields of medicine and agriculture. In the same vein, the institutionalization of engagement in policy formulation is partly ensured through established organizational interface structures such as MUPSF and frameworks like the Research and Innovations Policy and the Intellectual Property Rights Policy. At the same time, given the degree of turnover attributed to low pay and the seemingly rigid promotion structures, it can be argued that the majority of the vice-chancellors at most of the public and private universities in Uganda left Makerere University for their new positions. In fact, most of the task forces for establishing new public universities are comprised of Makerere University employees on secondment, hence

contributing to the development and expansion of the higher education sector.

As already expressed, this flagship university has been instrumental in innovations and scientific breakthroughs, especially in medicine, agriculture, and technology, thereby attracting funding from international agencies as well as the government of Uganda. Most important is that most of the innovations in agriculture, medicine, and technology have greatly benefited the rural poor in improving their livelihoods. Consequently, the Office of the President and the line government ministries continue to provide funding and support for these emerging innovative practices. It is important to note the close alignment of the university's current strategic pillar of knowledge transfer, partnerships, and networking with national policies and frameworks like the PEAP, the National Development Plan, and Vision 2040. This pattern presents opportunities for the emergence of a deliberate regional and national innovation system that would systematically contribute to regional and national development.

## CONCLUSION AND RECOMMENDATIONS

The foregoing analysis of Makerere University as a flagship university illuminates a three-stage transformation. First, the colonial university focused on training for low-cadre jobs. Second, the nationalist university emerged to build capacity for skilled nationals to manage during the post-independence era. Third, the neoliberal university led to the emergence of the public-private mix in higher education in Uganda. Within this framework, the institutional profile of Makerere University has been changing with respect to the composition of the academic staff, its governance, student enrolment, and the missions of research, teaching, and community engagement with varying emphasis on development. Currently, the university aspires to be research-led by 2018–2019 and has continued to attract external funding from different international agencies. Of course, one of the challenges that the university is facing is the low number of senior academic staff at the rank of associate professor; to achieve its goal, over 50% of its academic staff will have to enrol for and complete doctoral studies. Because the university continues to build capacity for the younger private and public universities and itself, graduate student enrolment and output is rather low. Nevertheless, the university remains a leader in innovations in the fields of medicine, agriculture, and technology. Moreover, institutional policies on research, innovations, and intellectual

property rights have been developed to provide frameworks within which innovations by scientists are managed. In the process, Makerere University as a flagship institution has attracted funding from international agencies and the government of Uganda to harness the budding innovations. It is anticipated that this dimension will cement Makerere University's leadership in research, innovation, and knowledge transfer in Uganda and the region. In view of the continuities in the transformation of Makerere University as a flagship university, this study makes the following recommendations:

- Research capacity through graduate training and research needs to be prioritized and strengthened despite inadequate funding. As already expressed, the number of prospective doctoral trainees is not matched with academic supervision capacity in terms of the number of senior academic staff at professorial rank. Capacity development must focus specifically on innovative approaches to doctoral-level supervision like cohort supervision among others.
- Given the low national and international graduate student enrolment, Makerere University should lead out in establishing new regional master's and doctoral training programmes and in rebranding existing programmes.
- The IRO needs to internally rebrand, spearhead internationalization activities, and devise aggressive marketing strategies to attract more international students.
- While the university is increasingly producing innovations, especially in the fields of agriculture, technology, and medicine, a negative side effect is the dichotomization of the flagship institution. To reduce the negative effects of this trend of fragmentation, more systematic affirmative action or prioritization needs to be given to the social sciences and humanities by deliberating allocating funds or earmarking funding opportunities.
- With regard to Makerere University's relevance in policy formulation and development, one of the key challenges is the need for stronger and sustainable linkages between the university and other actors in the economy. Generally, there should be more systematic correspondence between the university's internal institutional frameworks and structures regarding research, innovations, and intellectual property with similarly institutionalized frameworks and structures at the policy level or with agencies in the broader national economy.

## APPENDIX

**Appendix 11.1** Peer-reviewed publications hosted at Makerere University by 2010

<i>Journal/publication name</i>	<i>Host unit</i>	<i>Year established</i>	<i>Publisher</i>
1. <i>International Journal of Computing and ICT Research</i>	Faculty of Computing and Information Technology	2006	Makerere University
2. Annual International Conference on Computing and ICT Research (Book chapters of peer-reviewed papers)		2005	Fountain Publishers
3. <i>African Journal of Animal and Biomedical Sciences</i>	Faculty of Veterinary Medicine	2004	NEPAD
4. <i>Uganda Veterinary Association Journal</i>			
5. <i>East African Journal of Rural Development</i>	Faculty of Agriculture	Late 1950s with frequent on and offs	Jointly by Uganda Association of Agricultural Economists and Faculty of Agriculture
6. <i>Makerere University Agriculture Research Bulletin (MUARIK Bulletin)</i>			
7. <i>African Crop Science Journal</i>	Faculty of Agriculture	1993	African Crop Science Society
8. <i>Uganda Journal of Agricultural Sciences</i>		Not known	Faculty of Agriculture
9. <i>African Crop Science Society Proceedings</i>		1993	African Crop Science Society
10. <i>Weed Science Proceedings for East and Southern Africa</i>		1995	African Crop Science Society
11. <i>African Health Sciences Journal</i>	Faculty of Medicine	2001	
12. <i>Uganda Journal of Health Sciences</i>			
13. <i>Uganda Health Information Digest</i>			
14. <i>Makerere University Medical Journal</i>			

*(continued)*

**Appendix 11.1** (continued)

<i>Journal/publication name</i>	<i>Host unit</i>	<i>Year established</i>	<i>Publisher</i>
15. <i>East African Journal of Peace and Human Rights</i>	Faculty of Law	1994	
16. <i>Makerere Journal of Political Science</i>	Faculty of Social Sciences	1994	
17. <i>Makerere University Research Journal</i>	Innovations at Makerere Committee	2006	African Crop Science Journal
18. <i>Mawazo</i>	Faculty of Arts		Makerere University Printery

Source: Makerere University (2013)

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