

THE CHALLENGES OF HIGHER EDUCATION IN NIGERIA

Delivered by

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SUMMARY

In examining the challenges of higher education, particularly in Nigeria, we should critically look at three critical factors - access, quality and cost. These three determinants bear very special relevance to the final output of our graduates. In Nigeria, the demand for higher education far exceeds the available spaces in the existing tertiary institutions. The present access ratio has informed Government's liberalisation process on the size of institutions and the allowance for more private universities. It probably accounts for the aborted fruitless journey into the so-called 'consolidation' in which philosophically different institutions were to be merged. Quality and funding are inextricably linked.

Quality is also affected by available human professional capital both in quantity and quality. Where funding is inadequate, what suffers most is the quality of outputs. Again, government is making efforts to address the issue of quality assurance through the establishment of an institutional framework for programme accreditation. Increasingly, we are encountering a knowledge-based economy and higher education should be a lifelong learning process, and certainly transcending the walls of the tertiary institutions. Higher education must provide that wholesome training that facilitates learning through life and produces graduates with high sights who fit securely to the needs of the private and public sectors, and have the versatility to take the challenges of the future. This calls for a paradigm shift on the part of present providers who must move from the traditional perception of being the sole source of knowledge to being facilitators of access to the increasingly exploding knowledge base in all fronts of human endeavour.

PREAMBLE

To be invited to deliver this October Lecture is indeed a singular honour. It is indeed a great honour to join several others who have had the privilege of delivering past lectures. I am deeply appreciative of the efforts of the planning committee to ensure that this lecture takes place. The great school - Government College Ibadan - provided the critical foundation for all of us in our different callings later in life, we cannot but continue to put education in the front burner in addressing the issues of not only the development of the individuals, but, most importantly, the development of our nation state. As a major actor in the higher education sector, it is my pleasure to share with you my views on some of the key issues affecting the sector today. It is my hope that you will have gained something from the presentation no matter your interest in the lecture - as parents, educators or concerned individuals.

In my lecture today - The Challenges of Higher Education in Nigeria - attention will be drawn to the challenges that we face in developing our higher education as an indisputable platform for the realisation of our national development goals in the increasingly knowledge-based world economies. I shall argue that there is need for paradigm shifts on the parts of the key stakeholders in the sector - government, universities as higher education providers, the private sector, and parents. But let me hasten to note that in this lecture I will be making reference to universities even though the term higher education encompasses the Polytechnics and Colleges of Education. However, I dare say that what I have to say about the university system applies mutatis mutandis to these two institutions.

HIGHER EDUCATION AND THE MILLENNIUM DEVELOPMENT GOALS (MDGS)

In 2000, world leaders agreed on a vision for the future - a world with less poverty, hunger and disease, greater survival prospects for mothers and their infants, better educated children, equal opportunities for women, and a healthier environment; a world in which developed and developing countries work in partnership for the betterment of all. It is an ambitious vision of development; a vision that has human development at its core to sustain social and economic progress. Eight goals, eighteen targets, and forty-eight indicators have been accepted as a framework for measuring development progress. They aim to cut extreme poverty by half, ensure every child has the chance to go to school and live a long and healthy life, and bring discrimination against women to an end. The risks of dying as a result of childbirth are to be dramatically reduced, deadly diseases brought under control, the environment better managed, and the benefits of progress more equally shared by all the nations of the world. Together, the aspirations of the MDGs and their associated targets and indicators represent a powerful framework for action. The goals are to be achieved not later than 2015.

In launching the MDGs, the former United Nations Secretary General, Kofi A. Annan, noted:

We will have time to reach the Millennium Development Goals - worldwide and in most, or even all, individual countries - but only if we break with business as usual. We cannot win overnight. Success will require sustained action across the entire decade between now and the deadline. It takes time to train the teachers, nurses and engineers; to build the roads, schools and hospitals; to grow the small and large businesses able to create the jobs and income needed. So we must start now. And we must more than double global development assistance over the next few years. Nothing less will help to achieve the Goals.

Seven years into the implementation of the MDGS, only a handful of African countries, not including Nigeria, have come close in any way to achieving the anticipated progress measured against the various indicators. Some of the reasons for this can be discerned from the Blair Commission Report on Africa. Permit me to quote extensively from the report:

Qualified professional staffs are essential to all forms of development. The delivery of health, education and other services depends on them. They are crucial for collecting and managing data, and debating and developing good policies, based on the evidence of what works and what does not. They are essential to implementing those policies and to monitoring how they are put into effect. Scientifically and technically proficient staffs are needed to identify opportunities arising from innovation and scientific discoveries and to develop effective policy in areas such as science, trade and resource management. Especially in the private sector, these particular skills are key to performance and innovation. Africa has been lacking skilled men and women in all these spheres and fundamental to this shortage is the loss of much of Africa's pool of skills to the developed world. Around 70 per cent of Ghanaian medical officers trained in the 1990s" have left and it has been estimated that there are more African Scientists and engineers working in the USA than in the whole of Africa.

This shortage starts with higher education, which ought to be the breeding ground for the skilled individuals whom the continent needs... But many of Africa's higher education institutions are still in a state of crisis.

They lack physical infrastructure, such as internet access, libraries, textbooks, equipment, laboratories and classroom space ... demand for higher education is increasing: in 2000, Nigeria had the capacity to accept only 12 per cent of qualified candidates. Hit by these pressures and a lack of funding, the research capacity of Africa's institutes has declined. The capacity that does exist is not being used efficiently, as there is limited collaboration, and human and financial resources are spread thinly... The science gap between Africa and the rest of the world is widening and under business-as-usual this gap will continue to grow.

(Underline is mine in the above quotation to accentuate the role of higher education in meeting the MDGs)

Towards alleviating the identified problem, the Report recommended in 2005 that the international community should commit US\$500 million per annum over ten years to revitalise Africa's institutions of higher education. On top of this, the Report recommended specific action for strengthening science, engineering and technology capacity to: one, enable countries to find their own solutions to their own problems; two, bring about step-changes in areas from health, water supply, sanitation and energy to the new challenges of urbanisation and climate change; and three, critically, accelerate economic growth, and enter the global economy.

International organisations, governments, and private sector groups have all coordinated their development work around the MDGs. In demonstrating Nigeria's commitment to the MDGs, the former administration of President Olusegun Obasanjo launched the following initiatives:

- The National Economic Empowerment Development Strategy (NEEDS)
- The Presidential Committee on MDGs
- Establishment of the Office of the Senior Special Assistant to the President on the Millennium Development Goals (OSSAP-MDGs)

Suffice it to note that NEEDS like the MDGs will require strong higher education sector to achieve its goals. And this will have to be achieved in a world that is increasingly being knowledge-intensive.

SUCCEEDING IN THE KNOWLEDGE ECONOMY

In my address to the Senate of the University of Ibadan as a newly appointed Vice-Chancellor in January 2006, I shared with colleagues what could be considered to be the roadmap to guide the university administration during my period 2006-2010. I noted that the vision of the University of Ibadan: “*To expand the frontiers of knowledge and transform the society through Innovation,*” was, indeed, in tune with the realisation of our national development goals through knowledge creation and dissemination, involving innovative and strategic linkages to the economy and the international community. I made the following observations as to the challenges that institutions such as University of Ibadan will face as knowledge workers:

1. There is no doubt that Nigeria is experiencing serious political and economic problems which have led to a high degree of pessimism about her future. Our problems as a nation have been further compounded by the on-going globalisation of the world economies in which only countries with strong industrial bases and political stability are able to face the take-no-prisoner environment of global competition. Our weak industrial base has, over the years, been underscored by our increasing dependence on importation of capital goods and services, food and other consumable items. The sum total of all these is an increasing debt burden that militates seriously against the implementation of national development plans, no matter how well conceived. It was in this depressed state that we entered this new millennium!
2. Worldwide, private and public sectors are seeking to chart directions for future growth and development using the triad of knowledge, information, and innovation. The imperative for these strategies is not simply to survive, but to thrive. The triad now surpasses most natural resource endowment as strategic economic resources for development. The compelling forces of global competition, the pace of technological advance, the shifting roles of government, and the increasing decentralisation of economic and regulatory functions, all require that successful economic strategies - whether for firms, cities, states, or nations - be premised on a high technological content, and a skilled and flexible work force.
3. The triad of knowledge, information, and innovation implies a central role for our universities, as knowledge workers. The imperatives of global competition demand that we reclaim and build our local economies by working to support and also create locally owned enterprises that sustainably harvest and process local resources to produce jobs and the goods and services that our people need. Technological innovations and the development of entrepreneurial capacity are key towards achieving this goal into the future with our universities having a central role to play. The University of Ibadan must provide leadership to achieve the desired development of this country by fostering, among others, government industry - university partnership. However, in doing this, we have to provide not only the *know-how*, but also the *know-why* and the *what-for*.

The situation articulated above calls for a new trajectory of development of the nation involving the development of the following factor inputs - entrepreneurship development; management for production; professional and skilled manpower development; and technology, including information technology - which are in short supply domestically.

These are the key areas that will largely determine the relevance of the university system to the future development of our nation. We cannot afford to remain on the sidelines in the rapid process of change towards the new global social and economic order. We need to re-energise in order to provide the kind of human resources the country needs to spearhead sustainable development. We must strive to create a new and dynamic spirit in our University system anchored on scholarship and one in which our educated and technologically literate products will become the scientists who can push the edges of knowledge, the business leaders who can transform knowledge into goods and services demanded by internal and global markets, and the government officials who create a fertile policy environment for both discovery and innovation.

Developing Countries that we are now celebrating today as success stories have over the years placed great premium on higher education for the development of their human capital. A good example is Malaysia which has been characterised by political and economic stability, and by consistently high levels of economic growth. As observed by Dr. John Rowett, GBE, Secretary-General, Commonwealth Universities, London, at the 32nd Convocation of University of Benin, held on 16th March 2007:

In Malaysia, as in Singapore, there has been a longstanding understanding of the absolute centrality of tertiary education to the achievement of national development goals. It was one defining element of Dr. Mahatir's vision for Malaysia to become a development society by 2020... the knowledge based economy master plan is aimed at transforming a largely production based economy into a productivity driven knowledge intensive - economy by 2020. The central element of the master plan is the accumulation and development of human resources. Prime Minister Badawi has observed:

"I do believe that it is also necessary to stress that for most countries today, human resources development and human capital formation is either extremely important, absolutely vital or a matter of life or death. In the case of Malaysia ... we think it is a matter of life or death". The substantive commitment of the Government of Malaysia to this strategy is well demonstrated by the fact that 32.5 per cent of total public expenditure on education at all levels is devoted to tertiary education, compared to an OECD average of 21.2 percent. Over the long term, tertiary education in Malaysia has been accorded the highest priority in public expenditure.

Dr Rowett, in the lecture under reference, also made the following pertinent observation:

It is now widely recognised that profound and debilitating damage was inflicted on higher education over more than two decades not only by failed national policies and predatory military rule but also by the policies pursued by the World Bank and the International Monetary Fund, together with various donor agencies. A one sided emphasis on the primacy of basic education and a dismissal of higher education as a luxury came to characterise the policy of international agencies. The consequences were all too predictable.

I dare say that the World Bank is parading the corridors of power in Nigeria, yet again, touting another concept which is neither here nor there in terms of developing the scientific base of the nation.

THE CHALLENGES FACING HIGHER EDUCATION IN NIGERIA

Distinguished Ladies and Gentlemen, the overarching picture of the situation in the Higher Education (HE) sector in Nigeria is probably that of a sector locked in an iron triangle defined by the vectors of Access, Quality and Cost as depicted below. But why has it been referred to as the 'iron triangle?' It is because of the following features:

ACCESS  QUALITY



COST

Suppose, in response to the increasing demand for higher education, the access is increased by admitting more students; as the numbers grow, the recruitment, training and payment of lecturers cannot keep pace, particularly in most developing countries of Africa that are already facing the brain drain syndrome. Class sizes increase and, as to be expected, quality of learning goes down. If quality is to be improved through provision of more books and learning materials in support of lectures, the cost of teaching will go up, leading either to fewer students or higher fees. Thus, any attempt to improve one side of the triangle leads to undesirable changes in the other two sides.

Let us now examine each of these elements further as they relate to higher education in Nigeria.

ACCESS

To quickly grasp the problem of access to HE in the country let me share with you the result of the admissions exercise conducted at the University of Ibadan for the 2005/2006 session. The University adopted a system that combined three elements: JAMB's UME scores; performance in SSCE/WASC/NECO; and performance in the Oral Interview. The combined performance in UME and SSCE/WASC/NECO formed the basis of invitation to the Oral Interview. This has come to be known in the university system as the University of Ibadan (UI) Model. The summary of the results of the post UME screening exercise using the UI Model is as follows:

First Choice Candidates

- Total No. of First Choice candidates with JAMB scores above 200: 22,000.
- Total No. invited for interview after due processing of JAMB/SSCE/WASC/NECO results: 1,375
- Total No. interviewed: 1,256

- Total No. recommended for JAMB admission: 1,065
- Rate of Attrition: 15.2%

Second Choice Candidates combined with left over of First Choice Candidates

- Total No. of Second Choice candidates with JAMB scores above 200: 18,000.
- Total No. invited for interview after due processing of JAMB/SSCE/WASC/NECO results: 782.
- Total No. interviewed: 620
- Total No. recommended for JAMB admission: 512.
- Rate of Attrition: 17.4%

Supplementary Admissions

- Total no. invited for interview after due processing of JAMB/SSCE/W ASC/NECO results: 1,561
- Total no. interviewed: 1,310
- Total no. recommended for JAMB admission: 1,129
- Rate of Attrition: 13.8%

The candidates who attended the oral interview and could not defend their scores in JAMB and the A-Level results were dropped. I personally witnessed a situation during the oral interview of a candidate who scored 280 in UME applied for admission to Economics in which she had A1 at SSCE could neither define GDP (Gross Domestic Product) or give correct answer to the simple question of ‘what is 2/3 of 12?’. The dropping of such candidates accounted for the attrition mentioned above. Overall, 3,685 candidates were short listed with 3,167 attending the interview. At the end of the exercise only 2,812 candidates were cleared and matriculated. This translates to approximately 1 out of 14 that applied to the University of Ibadan for admission and probably out of 10 candidates that were qualified but could not be admitted due to limited quota.

There is no doubt that access is a big problem in the sector and it probably accounts for the widespread examination malpractice being witnessed in the conduct of JAMB examinations. However, suffice it to note that it has also largely accounted for the liberalisation of the establishment of private universities in the country. As at the last count, the nation can now boast of 89 universities comprising 27 Federal, 30 State; and 32 Private, It is significant to note that there are now more private universities than Federal or State universities. But what are the impacts of the present structure and number on quality and cost?

QUALITY

The issue of quality comes into play in the discussion of the proven and potential impacts of the products of our tertiary institutions in the various sectors of the economy. There is no denying the fact that employers of the different cadres of products of tertiary institutions have been expressing disappointments on the quality of their performance which has been found to be below expectations in most cases. Viewed against this background, quality may be characterised as any, and hence all of the following attributes:

- The extent to which formulated goals and aims are reached
- The extent to which the product meets the demands/satisfaction of both the customers and employers of labour
- Fitness for purpose measured by the extent to which an institution's provisions align with, or fit, national priorities, goals, objectives and aspirations;
- Fitness of purpose - standards, competencies, academic/professional qualifications.

One of the greatest problems militating against quality in the Nigerian Higher Education is the level of funding. This manifests itself in respect of the following key quality-determining parameters:

- Teaching, learning and research environment
- Quality of students ∴ Quality of staff
- Curriculum delivery.

Every institution prides itself on producing students worthy in both character and learning. This is surely an uphill task in an environment characterised by acute shortage of accommodation, students' vices in form of cultism and staff flagging commitment. As noted by Prof. Akinkugbe in his 50th Foundation Day Convocation Lecture at the University of Ibadan in 1998, I quote,

It does not require much effort to predict that a young man or woman who shares a six-person room meant for two, cooks on the corridor, struggles day and night for water to wash and drink, constantly outraged by erratic power outages and queues regularly for the use of the toilet, cannot possibly emerge as a wellrounded, disciplined and public spirited citizen.

A situation in which more than 40 universities were established in the country in the past 10 years has created serious problem for the recruitment of quality academic staff for the various programmes. The new universities have not been able to attract staff from outside the country and therefore rely on poaching staff from established universities. This is usually accomplished through enticement of staff with appointments to higher level positions that some of these staffs are unable to attain in their universities.

Little wonder that lecturers who are still to establish themselves in the academia are already being appointed to high administrative positions in some of these universities. Or the present prevalent 'moonlighting' in which some lecturers teach part-time in one or two other universities to increase their revenue base.

Poor funding has also led to poor teaching and research' environment characterised by obsolete equipment and limited funds to meet the recurrent cost of laboratory materials in science based programmes.

In respect of funding, it is pertinent to appreciate the increased allocation to universities under the Obasanjo-led administration. Under the military, that is pre-1999, it was difficult for most universities to even pay the salaries of staff. At least the last administration provided enough to fully foot the bill for salaries and emoluments while also providing, in varying degrees, the requirements for other items of expenditure. Worthy of note also are interventions by the Educational Trust Fund (ETF) towards infrastructural and laboratory development, and by the Petroleum Technology Development Fund (PTDF). ETF interventions in my University have been most significant, purposeful and well executed.

But the reality is that the universities need more funds to provide quality education and training. Most especially the first generation universities (Ibadan, Nsukka, Ahmadu Bello, UNILAG) which are expected to be more engaged in building our national capacity for research and development.

COST

The pertinent question to ask in respect of cost is - are universities recovering the cost of provision of good quality education and training of their students? To answer this question faithfully, it must be assumed that our universities also have ready figures of how much is needed for each of their programme offerings. Whilst the private universities may have such figures as the basis of the determination of their fees, most universities in the public - Federal and State - are still to come up with such figures. The reason for this is not far removed from the fact that students do not pay tuition fees in the Federal universities. Whether these universities are able to determine their cost structure or not, the fact remains that the level of funding by government is inadequate to meet their needs. The first casualty in such a situation is quality. Since private for-profit institutions depend on tuition fees for their existence, their multiplication will continue to put the spotlight on fees. Fees are a special problem for countries like ours that have made higher education free - i.e., totally subsidised by the State. As noted by Sir John Daniel, "most countries realise they now have to pay attention to fees policy and are gradually introducing fees in the public sector, either because of a conviction that it is more socially equitable or because there is no financial alternative. This puts the private sector on a more level playing field and gives private institutions greater latitude to set fees, which makes them more attractive as investments."

The present imbalance between the fees paid in the private institutions and in public institutions will not augur well for the overall development of higher education in the country to enable the institutions perform their functions as agents of development. In other words, having relatively free public sector institutions existing alongside with expensive private sector institutions does not create an effective higher education system.

However, if the present policy is to continue, our governments can learn from the model of funding of university education in Britain. Each University is expected to charge 8,000 pounds per student as the cost of quality provision of their programmes. British and European Union students pay only 3,000 pounds as tuition fees while the government pays the balance of 5,000 pounds per student to the university to enable it recover cost. Foreign students pay the full economic cost of 8,000 pounds.

BREAKING THE IRON TRIANGLE

Most have assumed that higher education is locked in an iron triangle defined by the vectors of access, quality and cost as presented earlier. The iron triangle emphasises the limitations of the traditional f2f (face-to-face) lecture method in conventional universities and explains why countries are finding the expansion of higher education expensive. It is no longer easy to build another Ibadan or ABU. In other words the present system is not easily scalable. May be we should look in other directions to scale up.

Available evidence in literature points to the fact that information and communication technology (ICT) can be deployed to operate on the three sides of the iron triangle to achieve mutually positive changes. ICTs do not only enable increased access, they may also improve the quality of education to the extent that they make it easier to access vast amounts of information, facilitate presentation of materials using multimedia and collaboration with others to improve classroom experience and ultimately lead to improved cognitive skills.

ICT-induced expansion of access at reduced cost is being achieved through distance education, open content initiative for learning by students and the collaborative content initiative for teaching by lecturers and learning by students. The creation of the UK Open University (UKOU) in 1969 ushered in the concept of distance learning which was later enhanced by the deployment of ICTs.

The UKOU was established on the basis of conviction by Walter Perry, the founding Vice-Chancellor. He began with a cohort of 25,000 students. He had the conviction that by using modern communications media and providing personal academic support to students, the effectiveness of university teaching could be transformed and access to higher education dramatically broadened.

Today, with 200,000 students, the UKOU operates well below the costs of other universities and holds fifth place in national rankings of teaching quality, just above Oxford. In 2005 it came first in a national survey of student satisfaction conducted on behalf of the UK government (Daniel and Kanwar, 2006).

At the University of Ibadan, the distance learning mode of education and training under the able leadership of Prof. Francis Egbokhare has witnessed rapid increase in student enrolment from about 1,000 in 2005 to the current student enrolment of 7,000. It is predicted to increase significantly by leveraging on the deployment of ICTs for service delivery. The world is witnessing explosion of knowledge in all fields with increasing emphasis now on the individual developing capability to access the information super highway.

The universities are no longer the exclusive source of knowledge. This calls for a paradigm shift in which lecturers are now more of facilitators than the traditional exclusive sources of knowledge delivered in a classroom setting.

The message now is 'learning to learn' and 'life-long learning' such as being nurtured on the platform of distance learning or open educational resources in which teaching and learning materials are made available on the web, or in learning object repositories, for everyone to use and share. It is not uncharitable to note that under the emerging reality of access to knowledge that students can become more knowledgeable than their lecturers in some areas. But we need paradigm shift for parents to accept distance learning as a credible alternative; and also, the conventional universities to give due recognition to products from such platform of delivery.

CONCLUSION

Once again, I thank the organisers for the invitation to deliver this lecture. I do hope that I have been able to draw attention to some of the key issues that should engage us all in moving tertiary education forward for the benefit of the students and the nation as a whole.

ABOUT THE LECTURER

PROFESSOR OLUFEMI ADEBISI BAMIRO, FSESN, FNSE, FAS was born on 16 September, 1947 at Ijebu-Igbo, Ogun State. He began his secondary school education at Molusi College, Ijebu-Igbo, passing out with a Grade 1 in the West African School Certificate (WASC) examination in 1965. He proceeded to Government College, Ibadan for his Higher School Certificate (HSC) course and passed out with a result adjudged to be the best in the country that year at the Cambridge Higher School Certificate in 1967. He thereafter proceeded as Shell Scholar to the Nottingham University, Nottingham, England for his first degree graduating with a Bachelor of Science (B.Sc.) degree in Mechanical Engineering, First Class Honours, 1971. Between 1972 and 1975, Professor Bamiro attended McGill University, Montreal, Canada where he obtained his Doctorate (Ph.D.) degree in 1975.

Professor Bamiro is a recipient of many scholarships, Fellowships and Awards. These include: Western Region Government Scholarship, 1966-1967; Shell-BP Oil Company of Nigeria Limited Scholarship, 1968-71; Commonwealth Scholarship for Postgraduate Studies, 1972-75; Post-Doctoral Fellowship, McGill University, Montreal, Canada, 1975; Canadian Natural Science and Engineering Research Council, 1980-82; Operation Crossroads Africa (OCA) Fellowship; UNESCO Fellowship, 1978; ANSTI Fellowship to University of Nairobi, Kenya, 1985-86. He was “Lecturer of the Year”, 1998/99 session, “Merit Award” Winner; Nigerian Society of Engineers (NSE), amongst others. He is also Fellow, Nigerian Society of Engineers (FNSE), 2004; Fellow, Solar Energy Society of Nigeria (FSESN), 1991; and Fellow of Academy of Science (FAS).

Professor Bamiro joined the services of the University of Ibadan in September 1975 as Lecturer I in the Department of Mechanical Engineering. He was promoted Senior Lecturer, 1978; Reader, 1981 and Professor, 1983. He has served the University of Ibadan in various capacities: Head, Department of Mechanical Engineering; Dean, Faculty of Technology, 1988-1992; Director, U.I. Management Information System (MIS) Unit, 1996-1999. He has also served the nation in several capacities: Secretary of the 24-man Panel that produced the Energy Policy for Nigeria in 1984, Member, 6-man Committee that prepared the blue-print for the implementation of the National Science and Technology Policy for Nigeria in 1987; and currently UNESCO Consultant for the on-going Reform of the National Science, Technology and Innovation System in Nigeria.

Prof. Bamiro was the Deputy Vice-Chancellor (Administration) University of Ibadan from November 9, 2005 until December 1, 2006 when he was appointed Vice-Chancellor of the University of Ibadan. By this appointment, Professor Bamiro became the 10th Vice - Chancellor of the University.

Prof. Bamiro was married to the late Mrs Gladys Olayinka Bamiro with the marriage blessed with children and grandchildren.

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