

REPORT FROM THE FIELD

EDUCATION UNDER STRUCTURAL ADJUSTMENT IN NIGERIA AND ZAMBIA

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ABSTRACT. This paper set out to measure, on a longitudinal basis, the effects of Structural Adjustment Program (SAP) on the education systems in Nigeria and Zambia. Trends revealed that fiscal measures introduced by Nigeria and Zambia during SAP had some devastating effects on public expenditure on education, the purchasing power of teachers, quality of education, access to education, and gender gap in the provision of education at all levels. Between 1984 and 1988, for instance, both countries experienced about an 8 % reduction in the share of education in the national budget. In a similar vein, public spending per student fell by 32.96% and 60% in Nigeria and Zambia respectively. At the same time, the high inflation rates in both countries led to a significant reduction in purchasing power. Consequently there were, in most cases, downward trends in the gross enrolment ratio, female participation in education, completion rate, pupils per school, pupil-teacher ratio, and performance in international examinations. Due to differences in educational priorities, the negative effects of SAP varied by educational levels, and between Nigeria and Zambia.

RÉSUMÉ. Les auteurs de cet article s'emploient à mesurer longitudinalement les effets d'un programme d'ajustement structurel (PAS) sur les systèmes d'éducation du Nigéria et de la Zambie. Tout porte à croire en effet que les mesures financières adoptées par le Nigéria et la Zambie durant le PAS ont eu des effets catastrophiques sur les dépenses publiques consacrées à l'éducation, sur le pouvoir d'achat des enseignants, la qualité de l'éducation, l'accès à l'éducation et le fossé hommes-femmes dans les services d'éducation à tous les niveaux. Entre 1984 et 1988 par exemple, les deux pays ont enregistré une baisse d'environ 8 % de la part de l'éducation dans le budget national. Dans une même veine, les dépenses publiques par élève ont baissé respectivement de 32,96 % et 60 % au Nigéria et en Zambie. Pendant ce temps, l'inflation élevée dans les deux pays a entraîné une forte baisse du pouvoir d'achat. Il y a donc eu dans la plupart des cas un fléchissement du taux de scolarisation, de la participation des femmes à l'éducation, des taux de réussite, du nombre d'élèves par école, du rapport enseignants-élèves et des résultats obtenus aux examens internationaux. Compte tenu des différences relatives aux priorités pédagogiques, les effets délétères du PAS ont varié selon le niveau d'études et entre le Nigéria et la Zambie.

Structural Adjustment Program (SAP) "is a wrenching change in economic policy. p.1." This comment by the World Bank (1998), one of the initiators of SAP, questions the continued desirability of this program in Africa where SAP has been widely undertaken. Nevertheless, structural adjustment, according to Lungwangwa (1993), is an attempt to address those internal indicators in the local economy, which make growth and reform untenable.

Considering the positive and negative aspects of SAP, this paper is intended to assess the extent of wrenching impacts of SAP on the education sectors in Nigeria and Zambia and to propose ways by which the negative effects can be ameliorated. In examining the SAP impact, some consideration will be given to the criticism of Noss (in Copple & Rota, 1991).

Studies generally rely on weak bases and poorly specified explanatory models that cannot assess causal links between adjustment and education indicators, and that usually do not differentiate between the impact of adjustment programs and of external shock (p. 28).

This paper, however, does not attempt to differentiate between SAP effects and those of external shocks as suggested by Noss (1991). This is owing to the fact that the external shocks (such as oil and commodity price shocks, the debt crisis, the breakup of the Soviet Union, and several local wars) are forces over which the individual countries have no control (Lungwangwa, 1993; Bruno, 1996). Of course, SAP is an offshoot of the external shocks brought about by unfavorable international economic conditions. These include deliberate reductions in the prices of the Third World commodities, the astronomic rise in the interest rates and debt services on external loans, and the trend towards trade protection by the developed world. Nevertheless, it is worth considering the proposal by Noss (1991) that any discussion of SAP impact on education should start with a description of the initial conditions. While SAP might not be the only factor contributing to the post-SAP problems in education, it is assumed in this paper that without SAP, the increasing trends in enrolments which preceded SAP would not have changed significantly from those of the baseline conditions in Nigeria and Zambia. Perhaps, if SAP had not been adopted, if the initial financial situation had been left uncontrolled, and if the initial growths in enrolment, teacher number, and schools had been left unabated, quality of education could have been affected adversely.

Consequently, the simple cause-effect relationship postulated between the adoption of SAP and education development has focused on the available quality and quantity indicators in education. In spite of the dearth of data, this paper deals with education development issues that are not given the coverage they deserve. The next section sets out the context, showing the evolution of the Structural Adjustment Program in Africa generally, and in Zambia and Nigeria more particularly.

SAP IN AFRICA

The decades of the 1970s and 1980s can never be forgotten in the economic history of Africa. Using the words of the World Bank (1988, Figure 1), in the late 1970s, commodity prices were strong in Africa. The commodity boom was, unfortunately, short lived owing to the global economic slowdown, which led to stringent economic policies at the international level in the early 1980s. Consequently, there was a sharp fall in commodity prices and a general increase in the real interest rates on external loans. Many African countries suddenly found themselves squeezed between falling of national revenue and increasing debt payment coming due.

How did African countries react to these external shocks? There was the immediate thought that things would improve with time. Most African countries then sought short-term assistance from the International Monetary Fund (IMF) and the World Bank. Realizing that the economic situation might not be as temporary as thought by African governments, the IMF and the World Bank, working with government officials, agreed on a program that would enable each country in Africa to adjust to the new tightened circumstances. Hence, the concept of "adjustment program".

The proponents of SAP were of the opinion that, to be eligible for these loans, there were structural economic problems to be addressed by each African country. According to the World Bank (1988), some kind of correction – either planned by the government or unplanned and forced through market adjustments – had to occur to make ends meet. Thus, a range of measures, known as SAP, were introduced to reduce internal and external deficits, increase efficiency in the economy and reduce government expenditure. These measures include: (1) Changing the exchange rate to reflect more closely the true value of the currency so that export from African countries became more profitable while imports became more expensive. Thus the volume of imports

would be reduced and producers would be encouraged to use more labour-intensive methods and more domestic raw materials; (2) Reducing government payrolls; (3) Selling to private interest government-owned enterprises; (4) Raising agricultural prices closer to world-market levels to encourage greater agricultural production; and (5) Reducing subsidies both on consumption items, and to producers.

Each of these measures has either direct or indirect impact on every government institution, including education, wherever SAP is implemented. Observers of the working of SAP have pointed out that various provisions of the program have contributed to retrenchment, retirement, unemployment, social inequality, poverty, and reduction in the quality of life. All these have the potential of lowering the benefits and raising the costs of education to the individuals. In fact, it would not be too far from reality to assert that the impoverishment of many parents created by SAP, could lead to school dropouts, poor nutrition, inability to bear the cost of education, and poor academic performance among school children (NISER, 1998).

In spite of these social costs, SAP is generally embraced in Africa. Its measures have been implemented by more than fifty-five developing countries, most of them in sub-Saharan Africa (World Bank, 1988). To most countries, SAP comes as a possible way out of the economic difficulties and a way of maintaining political legitimacy and stability. Nevertheless, while countries such as Zambia received SAP with little debate, others, such as Nigeria, were reluctant at accepting some of its measures. While Zambia under Kenneth Kaunda entered into SAP as far back as 1984, Nigeria, under Ibrahim Babangida, on the other hand, did not accept SAP fully until 1986. The reason for the time lag at implementing SAP can be found in the differences in the initial economic conditions in Zambia and Nigeria.

SAP IN ZAMBIA

SAP came at the time when the Zambian economy had reached a significant level of strain (ILO, 1981). As rightly observed by Kelly (1991), economic factors, arising primarily from Zambia's unbalanced economy and its dependence on a single primary product (copper), have brought about the economic decline. The price of copper collapsed in 1975. The contribution of mineral receipts to the economy fell from some 7 per cent in 1975, to virtually zero per cent in 1977 and 1978. By 1979, the situation had deteriorated badly, with more than 1

per cent of the government annual expenditure being used to support the mining industry (Kelly, 1991). By 1982, the real price of copper was at its lowest for nearly 40 years (Krumm, 1984, in Kelly, 1991). Coupled with the dwindling income from Zambia's exports was the rise in the prices of oil imports. In 1985, Zambia used 33 per cent of its foreign exchange earnings to buy a much smaller quantity of oil than what it used about 8 per cent of its foreign exchange earning to purchase in 1975. Zambia's initial conditions have been well summarized by Lungwangwa (1993) in the following statement:

The steep declines in the price of copper. . . the rise in the oil importation bill. These factors combined with the rise in the re-routing of the trade route from the South to the North in Tanzania, the devaluation of the local currency, the liberation wars in South Africa, and the heavy subsidies. . . plunged the country into economic difficulties and easily became a candidate of SAP. (p. 5)

On the 29th of January 1985, Zambia embraced SAP as a means of obtaining the International Development Association (IDA) loan, CR 1545 A - 005 - ZA to rehabilitate agriculture. The loan, which was US\$35 million, was expected to close on the 30th June 1988 (World Bank, 1995, Annex - Table 1, p. 276).

SAP IN NIGERIA

Unlike in Zambia, it is not easy to establish the adjustment period of SAP in Nigeria. While some Nigerians believed that adjustment started in 1986 with the foreign exchange deregulation, records show that SAP started as far back as 1983 when Nigeria signed a credit agreement, Ln 2345 - UNI, with the International Bank for Reconstruction and Development (IBRD) for a loan of US\$250 million to import fertilizer. The short-term loan spanned the period between September 13, 1983 and December 31, 1986.

"SAP has been necessitated by the magnitude of Nigeria's wasteful habits which have been allowed to drag on for too long before adjustment measures were introduced" (Babalola, 1990). Like Zambia, Nigeria is a monolithic economy, depending mainly on the oil sector as the only source of foreign exchange and government revenue. Unlike in Zambia, however, the economic problem faced in Nigeria was not in connection with its production pattern. Rather, being an oil-exporting country, it was linked with its consumption-investment patterns.

Falegan (1979), in his attempts to justify the full-fledged SAP in Nigeria, stated that there was a need to move resources gradually from consumption to investment, from import to export trade and from social to purely economic activities. To lend credence to Falegan's earlier statement, the President of Nigeria in 1988 also stated that "Nigerians cannot afford to relapse into lavish consumption patterns and wasteful habits" (Babangida, 1988). It was this kind of thought that led to the continuation of SAP beyond the initial deadline of December 1986.

Having discussed the background to SAPs in both Zambia and Nigeria, the next section raises pertinent issues to be addressed in this paper.

SAP AND RELATED ISSUES

When structural adjustment was initiated in both Nigeria and Zambia, it was expected to be a short-lived phenomenon. Its adverse impact, if any, was expected to be a temporary one. Over time, however, it became clear that adjustment was going to take longer than anticipated. This led to a growing concern about the need to take a conscious action to mitigate the costs of adjustment. At the same time, there has been some debate about the extent of the short- and long-run negative impact of SAP on human development (Mahmood, 1995). In order to facilitate actions on how to mitigate the negative impact of SAP on education, the following questions need to be addressed:

1. What has been the impact (negative and positive) of SAP on the education system? Which levels or aspects of education of the system have been most affected?
2. What have the governments done to ameliorate the negative impact of SAP?
3. Is adjustment creating the base for a growth path that would ensure rapid educational development in Nigeria and Zambia?

The rest of this paper sets out to discuss the above questions, using the available data from official documents.

SAP IMPACT ON EDUCATION IN NIGERIA AND ZAMBIA

This section highlights the three-stabilization policies adopted by Nigeria and Zambia during adjustments in order to discuss their impact on available indicators of educational development. Having experienced high inflation, loss of foreign exchange reserves, and an unsustainable

current deficit prior to SAP, Nigeria and Zambia attempted to reduce fiscal deficits. They devalued their currencies to maintain a balance between import and export and reduce negative interest differential or maintain a reasonable balance between the local deposit rate and the international interest rate (external balance).

Fiscal policy and internal balance

Nigeria and Zambia did not reduce fiscal deficit significantly and therefore experienced rising inflation during adjustments. The fiscal deficit, which was -9.4 in Nigeria at the inception of SAP in 1983, came down to -4.1 in 1984, -2.5 in 1985, and -2.8 in 1986. The deficit however, rose from -8.6 in 1987 to -10.0 in 1988. Nevertheless, it fell from -6.1 in 1989 to -3.2 in 1990. In similar vain, the fiscal deficit which was -14.4 at the inception of SAP in Zambia in 1985 increased to -28.0 in 1986, dropped to -12.9 in 1987, rose again through -13.1 in 1988, and -11.2 in 1989 to -20.5 in 1990. Consequently, because of the unstable fiscal policies and internal balance in Nigeria and Zambia respectively, each country's efforts to curb inflation was a step forward and two steps backward during adjustments (The World Bank, 1995, Annex Table 3.2, p. 289).

Poor fiscal policy and educational spending

The inability of Nigeria and Zambia to maintain internal balance has a two-pronged effect on educational spending. First, the insignificant attempt to reduce central government deficit has a negative impact on the public expenditure on education. In Nigeria, for instance, per capita education spending dropped from 5.6 in 1981, through 3.9 in 1983, and 2.1 in 1986, to 1.1 in 1988 (Table 1). In Zambia, however, the downward trend in the per capita education spending was short lived. Having dropped from 5.4 in 1985 (when SAP started) to 4.3 in 1986, per capita spending picked up from 6.4 in 1987 to a remarkable level of 7.8 in 1988. As far as the share of education in the national budget is concerned, both countries experienced downward trends from 1984 when education shares were 8.0 per cent and 15.1 per cent in Nigeria and Zambia respectively. By 1986, Nigeria and Zambia experienced about 3 per cent and 7 per cent drops in education shares respectively. By 1988, both countries experienced about 6 per cent drop in education shares when compared with their 1984 levels.

The consequential effect of a reduction in public spending on the expenditure per student is shown in Table 1. Unit cost, which was

TABLE I. Public expenditure on education during adjustments in Nigeria (N) and Zambia (Z)

Indicator	Conversion Factor		Unit Cost \$US		Per capita educ. spending		Educ. As % of budget	
	N	Z	N	Z	N	Z	N	Z
1980	0.5	0.8	190.94	137.53	3.4	5.1	5.2	9.5
1981	0.6	0.9	302.55	n.a	5.6	6.0	7.8	11.8
1982	0.7	0.9	82.16	n.a	4.5	7.7	7.9	13.8
1983	0.7	1.3	82.94	131.14	3.9	6.4	7.4	14.0
1984	0.8	1.8	n.a	97.68	2.5	6.8	8.0	15.1
1985	0.9	3.1	55.59	n.a	2.5	5.4	8.0	11.4
1986	1.8	7.8	n.a.	n.a.	2.1	4.3	4.8	7.9
1987	4.0	9.5	n.a	38.67	1.6	6.4	2.7	10.9
1988	4.5	8.5	n.a.	55.11	1.1	7.8	2.0	9.1

- NOTES
1. The conversion factor is the average annual official exchange rate normally used by the world bank.
 2. The real per capita education spending is in 1987 US\$. Data are calculated using the conversion factors.

- SOURCES
1. World Bank (1992) *African Development Indicators*.
 2. UNESCO *Statistical Yearbooks* (Various Years)

TABLE 2A. Educational development before and during adjustments in Nigeria (N) and Zambia (Z) FIRST LEVEL

YEAR	GROSS ENROLMENT RATIO				PUPILS PER SCHOOL		PUPIL-TEACHER RATIO	
	MALE/FEMALE		FEMALE		N	Z	N	Z
	N	Z	N	Z				
1975	53	97	45	88	291	322	35	48
1980	97	98	84	92	377	370	37	49
1981	98		84		381	401	37	
1982	97		84		387	412	38	
1983	92	101	81	95	376	431	40	
1984		103		97		412		47
1985	82	106	73	101	375	431	44	49
1986		97		92		415		46
1987	68	96	59		333	420	43	
1988	72	95	62	91	364	420	42	44
1989	70	95	63		384	414	45	
1990	72	92	63	89	389	407	41	44

- SOURCES:
- UNESCO *Statistical Year Books* 1988, 1991, 1992, 1995.
 - World Bank (1992) *African Development Indicators* (for performance on international examinations)
 - Republic of Zambia, Ministry of Education (1995) *Education Statistics Bulletin*.

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TABLE 2B. Educational development before and during adjustments in Nigeria (N) and Zambia (Z) SECOND LEVEL

YEAR	GROSS ENROLMENT RATIO				STUDENT-TEACHER RATIO						% PASSES LONDON GCE(OL)			
	MALE/FEMALE		FEMALE		GENERAL		TEACHER TRAINING		VOCATIONAL				TOTAL	
	N	Z	N	Z	N	Z	N	Z	N	Z			N	Z
1975	8	15	6	10	23		24	10	6		45		45	
1980	19	17	13	12	32	22	32	12	6	11	29	21		
1981	22		13		32		36		26		32			
1982	28		14		32	23	30		27		31			
1983	29	18	13		38	24	31		15		36			
1984		19	14		25									
1985	29	19	26	14	23								72 36	
1986		19	14		25		10		9					
1987	26	19	22		24									
1988	21	20	18	14	28		10		9		20	25		
1989	19		16								20			
1999	20	21	17	16							22		90 39	

- NOTE: •% Passes (OL) = % of test-takers that passed London (and Cambridge) GCE Oⁿ Level
 SOURCES: •UNESCO *Statistical Year Books* 1988,1991, 1992, 1995.
 •World Bank (1992) *African Development Indicators* (for performance on international examinations)
 •Republic of Zambia, Ministry of Education (1995) *Education Statistics Bulletin*.

TABLE 2C. Educational development before and during adjustments in Nigeria (N) and Zambia (Z) THIRD LEVEL

YEAR	GROSS ENROLMENT RATIO				STUDENTS PER 100,000 INHABITANTS		STUDENT-TEACHER RATIO					
	MALE/FEMALE		FEMALE				ALL INSTITUTIONS		UNIVERSITY & EQUIVALENT		OTHER	
	N	Z	N	Z			N	Z	N	Z	N	Z
1975	0.8	2.1	0.2	0.6	66	174			7		15	
1980	2.2	1.6			191	131	14		13		14	
1981	2.5						12		11			
1982	2.7											
1983	2.8	1.7		0.7					12	8		
1984	2.9	1.6		0.7	239	136				7		
1985	3.3	1.6	1.7	0.7	290	126			12	8		
1986		2.3		0.9		128			14	12	10	
1987	3.2	2.0	1.8	1.1			19	13	14	11	36 14	
1988	3.5	2.2	1.9	1.1		190			14			
1989	3.7	2.2	2.0	1.1	320	178	17		15		20	
1990		2.2		1.1		189					90	

- SOURCES: •UNESCO *Statistical Year Books* 1988,1991, 1992, 1995.
 •World Bank (1992) *African Development Indicators* (for performance on international examinations)
 •Republic of Zambia, Ministry of Education (1995) *Education Statistics Bulletin*

US\$82.92 at the inception of SAP in Nigeria in 1983 dropped to US\$55.59 in 1985. In a similar vein in Zambia, the unit cost dropped from US\$97.68 in 1984 through US\$38.67 in 1987, to US\$55.11 by 1988. The second problem associated with the ineffective expenditure reduction policies in Nigeria and Zambia is high inflation. The World Bank (1995) reveals that the annual inflation rates which were 10.0 and 11.6 in Nigeria and Zambia in 1980 rose to 51.0 and 96.4 in 1989 in both countries respectively. Kelly (1991) has rightly captured the inflationary effect of the inadequate expenditure reduction in Nigeria and Zambia in the following statement:

Funds to purchase teaching materials and school equipment declined. . . Teachers' salaries lost much of their purchasing power that many felt compelled to take up additional money generating activities to supplement their incomes.

The situation in Nigeria is quite similar to that of Zambia, as described above in the late 1980s, for example, SAP has become one of the major issues contributing to the crisis in Nigeria education. As Adeyinka (1993) has observed:

The financing of Nigeria's education system has reached a crisis point. Governments do not seem to be able to make adequate provisions for capital development in the various educational institutions. Classroom accommodation, student's hostels, staff quarters (where they exist at all) do not seem to be adequate. All these are as a result of the biting effects of the Structural Adjustment Program (SAP) and the Foreign Exchange Market (FEM). (p. 9)

Reduction in public spending and educational development

Table 2(A,B,C) reveal the effects of the reduction in education spending on various indicators of educational development in Nigeria and Zambia. The following discussion is presented by level of education to highlight the variation in SAP effects on educational development.

First level education

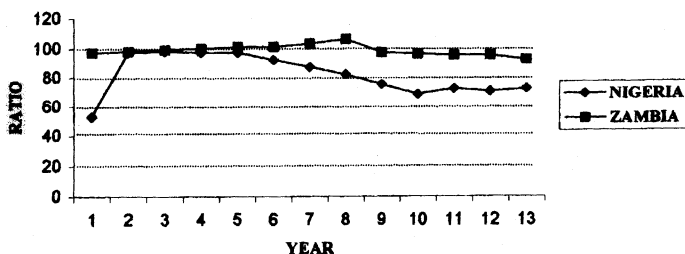
The objectives of the first level of education are to produce a literate and numerate population and to lay the groundwork for further education (Babalola, 1996). The effectiveness of the second and third levels of education rests on a solid foundation which is a product of the primary education systems. Considering the declining public expenditure on education during adjustment in Nigeria and Zambia, has pri-

mary education been able to meet its objectives? The next discussion provides answers to the above question by looking at the trends in the gross enrolment ratio, female participation, completion rate, pupils per school and pupils per teacher (the choice of these indicators has been dictated by the availability of data).

Gross enrolment ratio

Figure 1 reveals a wider gap between Nigeria and Zambia as far as the gross enrolment ratio is concerned. Since 1975, Nigeria has increasingly failed to provide all school-age children with the opportunity to attain necessary skills that would enable them to contribute effectively to the development of the nation. However, the drop in gross enrolment ratio became significant since the inception of SAP in 1983. Between 1983 and 1987, the ratio dropped by about 20 percent. On the other hand, Zambia, which experienced a commendable rise in the enrolment ratio at the first level between 1975 and 1985, suddenly

Fig 1. FIRST-LEVEL GROSS ENROLMENT RATIO (both sex) NIGERIA AND ZAMBIA, 1975 - 1990

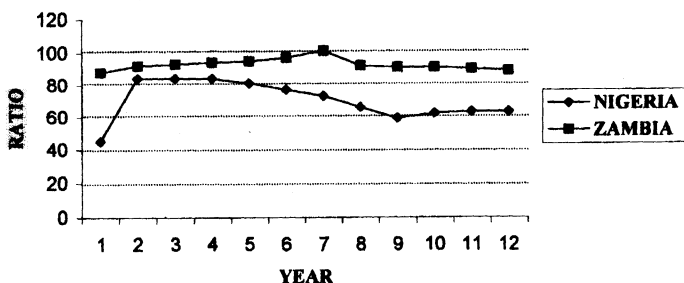


witnessed a sharp drop during the first year of SAP. Since then, Zambia primary education system has gradually failed to provide all school-age children with the opportunity to attain functional literacy.

Female participation

Figure 2 shows an increasing disparity in female participation in Nigeria and Zambia. This is due to the significant downward trend experienced in Nigeria following SAP in 1983. Nevertheless, Zambia witnessed a sharp drop in female participation during the first year of SAP in 1985, and experienced a gradual downward trend to 1990. The implication of low participation of girls in primary education cannot be overempha-

FIG 2. FIRST-LEVEL GROSS ENROLMENT RATIO (female only)
NIGERIA AND ZAMBIA, 1975 - 1990.



sized. The ability to appropriate the socioeconomic advantages of education will be depressed as more school-age children, particularly girls, are being excluded from taking part in primary education (Babalola, 1996).

Completion rate

In Nigeria, where data are available, primary schools were faced with the problem of low completion rate following SAP. Out of the 2,762 million 1986 primary school cohort, 5 percent did not complete primary four by 1989, and 56 percent of those dropping out before completing primary four were girls (FME/UNICEF SAPA Study of 1991). Since successful completion of primary four class level is considered as a threshold for attaining permanent literacy and hence stimulate socioeconomic growth, the low completion rates following SAP compromise the system for human capital development (Babalola, 1996).

In Zambia, 21% of the children-entering Grade 1 are unable to complete the primary education cycle (GRZ 1996). The dropout rate at this lower level is caused by lack of opportunities for upper primary school in rural areas and rising cost of school uniforms and other educational requisites.

Pupils per school

Figure 3 reveals a widening gap between the number of pupils per primary school in Nigeria and Zambia between 1980 and 1987. While Zambia had tried to maintain a school size of about 400 pupils per school throughout adjustment, Nigeria experienced three types of trends: constant trend between 1983 and 1985; steep downward trend between 1985 and 1987; sharp upward trend between 1987 and 1990. The

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school size in Nigeria was, in most years, around 375. SAP's negative effect was more obvious in Nigeria than in Zambia as far as the congestion in schools was concerned. Nevertheless, the situation was still better than that of Zambia. It should be noted here that pupils per school do not automatically reveal educational quality, but only the share of resources. Hypothetically, it is generally believed that smaller schools will increase the amount and quality of teacher-student interaction. Six U.S. studies however, found no effect, while mixed and inconsistent effects were found in six other studies from England and the U.S. (Fuller, 1986).

FIG 3. PUPILS PER PRIMARY SCHOOL, NIGERIA AND ZAMBIA 1975 - 1990

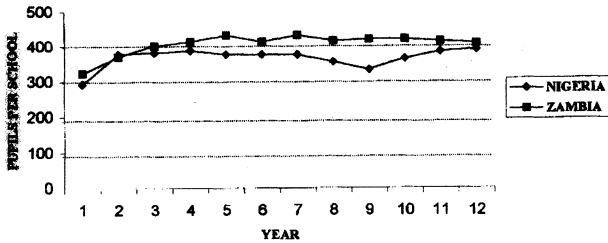
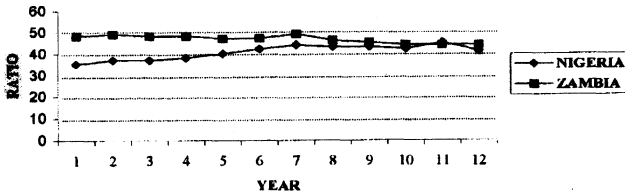


Fig 4. FIRST-LEVEL PUPIL-TEACHER RATIO, NIGERIA AND ZAMBIA, 1975 - 1990.



Pupil-teacher ratio

More important than the pupils per school is the number of pupils per teacher. In Nigeria and Zambia, 40 pupils per teacher has been considered the critical ratio for effective learning. Figure 4 shows that, constrained by money during adjustment, each country was making deliberate effort to achieve optimum utilization of its teachers without adverse effect on teaching effectiveness. While Zambia was making effort to lower its pupil-teacher ratio from about 50 to 45 in 1985, Nigeria was attempting to upgrade from about 40 to about 45 in 1983. In general, Nigeria was still better off than Zambia in terms of the

number of pupils per teacher at this level. Generally, both countries found it difficult to employ teachers despite the increasing enrolments.

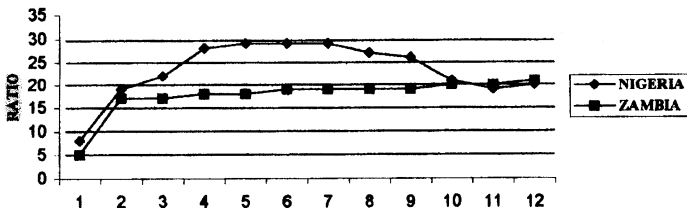
Second level education

Hitherto, evidence shows that Zambia was able to attend more positively to access and equity issues in primary education during SAP than did Nigeria (Figures 1-4). The next discussion gives the picture of educational development at the second level during adjustments in Nigeria and Zambia. Second level education is meant to provide a foundation for tertiary education and also to equip young men and women with vocational-technical skills in an environment of dwindling public employment opportunities. How have these objectives been constrained by the reduced public expenditure on education in Nigeria and Zambia? Limited by data, the next discussion focuses on the gross enrolment ratio, female participation and percentage of test-takers that passed London and Cambridge GCE Ordinary level examinations during adjustments.

Enrolment ratio

Figure 5 shows that Nigeria has alarmingly failed to provide second level educational opportunities for the young people between 1983 and 1990. The enrolment ratio dropped from about 30 in 1983 to less than 20 in 1990; whereas in Zambia, though initially far below Nigeria's level, the enrolment ratio gradually rose above that of Nigeria even during its adjustment.

Fig 5. SECOND LEVEL GROSS ENROLMENT RATIO (both sexes), NIGERIA AND ZAMBIA, 1975 - 1990



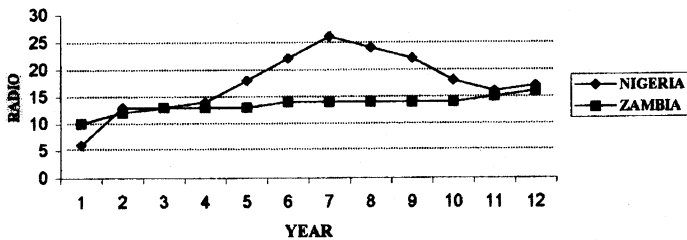
Female participation

Figure 6 reveals that female participation in the second level education was adversely affected by the adjustment in Nigeria. The female gross enrolment ratio which was above 25 in 1985 dropped to about 15 in 1989. On the other hand, though below that of Nigeria, female partici-

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pation was gradually on the increase during the period of structural adjustment in Zambia. It is worth noting that female participation in education determines the relevance of an education system. According to King and Hill (1993), raising the level of women's education contributes in important ways to social and economic development. In fact, maternal education has been found to be more useful than paternal education in influencing children's education. This is owing to the fact that, in most cases, child training is more influenced by mothers than by fathers.

Fig 6. SECOND-LEVEL GROSS ENROLMENT RATIO (female only), NIGERIA AND ZAMBIA, 1975 - 1990



Performance in international examinations

Table 1 shows that Nigeria test-takers performed better than their Zambia counterparts in London (and Cambridge) GCE 'O' level examinations during adjustments; in fact compared with 1975 there was a drastic change in performance during SAP in Zambia. This could have been a result of the trade off between quality and quantity in education. Evidences show that Zambia emphasized quantitative growth at the expense of quality in education in spite of dwindling resources during adjustment. On the other hand, the linear educational objectives were down played in Nigeria during SAP to concentrate the available resources on qualitative education. This was at the expense of access and equity in education.

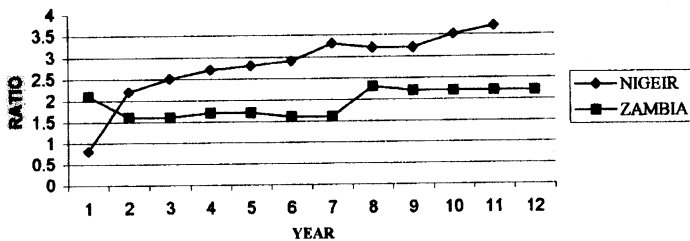
Third level education

Third level education is basically meant to produce the needed skilled manpower in the economy. To what extent has this level been incapacitated by under-funding during adjustments in Nigeria and Zambia?. The next discussion provides answers to the above question looking at the available data on gross enrolment ratio, female participation, and student-teacher ratio.

Gross enrolment ratio

Contrary to its experience at the first and second levels, Nigeria increasingly made third level education available to the relevant age population in spite of financial restraints during adjustment. In a similar vein, and as in the other lower levels, Zambia gradually increased access to higher education following a drastic reduction in 1987 (that is at the middle of SAP). In general, Nigeria was far ahead of Zambia as far as access to higher education during the time the adjustment was concerned.

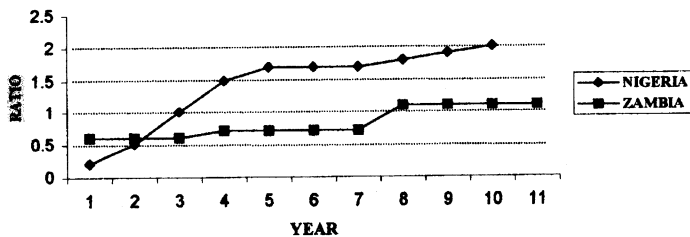
**Fig 7. THIRD-LEVEL GROSS ENROLMENT RATIO (both sexes)
NIGERIA AND ZAMBIA, 1975 - 1990**



Female participation

Figure 8 reveals that both Nigeria and Zambia experienced great improvements in female participation in higher education during adjustment. This is likely to be as a result of the international emphasis on gender balance in education and development (Babalola, 1994: 72). Moreover, it is now widely accepted that an economy derives more benefits from female than from male education.

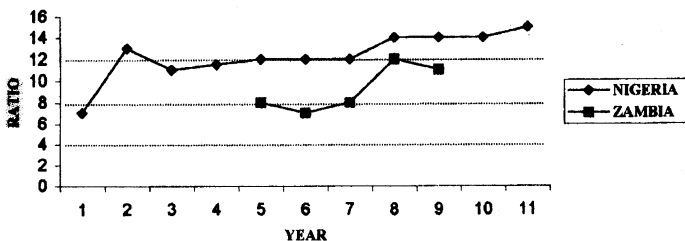
**Fig 8 THIRD-LEVEL GROSS ENROLMENT RATIO (female only),
NIGERIA AND ZAMBIA, 1975 - 1990.**



Student teacher ratio

Unlike at lower levels, Nigeria underplayed quality for quantity in higher education. This is reflected in the step-wise rise in the number of students per teacher since 1983. In similar vein, Zambia increased the number of students per teacher from 8 in 1985 to 12 in 1996. However, by 1987, effort was made to bring the ratio down to 11 (Figure 9). In both countries, there was a deliberate effort to apply economies of scale in higher education by allowing the enrolment to grow, but placing embargo on teachers' appointments. This is in response to the dwindling resources. In the words of the Zambia government itself (Republic of Zambia, 1996, p. iv): The strategies adopted to cope with declining resources have had negative impacts on the quality of the education and training provided in the majority of institutions and centres. Large classes, reduced hours of classroom instruction, shortages of teaching and learning materials, inappropriate methodologies, inability to place technical students on industrial attachments, and difficulties on retaining capable and trained staff have all contributed to jeopardizing quality within the sector.

Fig 9. THIRD-LEVEL STUDENT-TEACHER RATIO (Universities and equivalence), NIGERIA AND ZAMBIA, 1975 - 1990.



SUMMARY AND CONCLUSION

This paper aimed at assessing the impact of SAP on educational development in Nigeria and Zambia. In doing this, brief discussions have been made on the evolution and designs of SAP in Africa in general and in Nigeria and Zambia in particular. Moreover, the expenditure reduction measure involved in the SAP package has been discussed in relation to its effects on education spending and development in Nigeria and Zambia.

Based on the findings of this study, it is crucial for countries with developed economies to know that SAP, being a donor-driven program, has negative effect on education in receiving countries. In Nigeria and Zambia, for instance, SAP had deleterious impact on the public expenditure on education, the purchasing power of the incomes earned by both institutions of learning and their staff, and on access, equity, and quality indicators in education at all levels. However, the varying approaches at combating the negative impact of SAP on education in Nigeria and Zambia suggests that each country has a level of control over the painful effects of adjustment on educational development. Resolving the traditional trade-offs between quality and quantity as well as between investments in primary and tertiary education requires a consideration for the suffering masses during SAP. Nevertheless, if local evaluation of education under SAP would not be a mere reactive gesture to foreign analyses of the problems, there is need to strengthen the recipient capacity to analyze issues.

Meanwhile, countries undergoing structural adjustment should therefore identify and compensate losers within their education systems. Such losers include teachers and other staff whose salaries have been eaten up by inflation. Similarly affected are poor children who could not afford the high private costs of education on tuition, additional living expenses, books, uniform, and transport. Such losers also include school drop-outs and graduates who could not get employment as a result of the narrowing labour market. Access victims who could not participate, particularly at the basic level of education owing to supply problems, should also be compensated while libraries, which owing to foreign exchanged and devaluation problems, should be assisted to source foreign materials. Lastly, deliberate efforts should be made by governments to involve all educational stakeholders in maintaining the quality of education and training provided, if developing countries must continue with SAP.

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