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Higher Education and Development in the Sudan

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Introduction :

The development of higher education in the west directly related to industry, professions and technocrat was a reflection of the economic and technological changes which took place in the west. Thus the legitimacy of university education was based on fulfilling the professional expectations of the society in addition to the humanistic aspirations of the post-Renaissance period. The extent to which this legitimization was sharply clear cut was an issue of much controversy¹⁰

However, most developing countries inherited their higher education from their colonial rulers, or founded their new institutions on the same principles and were challenged by the question of adapting these institutions to their specific needs. The question of relevance of university education to the developmental needs of developing countries was and is still a crucial issue. The challenge of accomodating higher education to the specific developmental needs of developing countries is now augmented by that of responding to the global knowledge ramifications. It now seems that adapting to these changes requires additional efforts from the part of developing countries. Knowledge being at the core of any development, means that higher educational institutions should be considered within a wider context. However, despite the fact that the dilemma is shared world wide, but we still find that those in the South feel the harder sting of it

Higher education in the Sudan , witnessed a process of adaptive changes , particularly during the last decade , which may illustrate , how a developing country tries to face the above mentioned challenges in its own way . However , the experience may be useful to others addressing the same problems .

Evolution of Higher Education in the Sudan :

Higher education in the Sudan , in its modern sense , started in the twenties of this century , with the establishment of a medical college (Kitchner Medical school) . This was subsequently followed by higher schools for arts , science , law , agriculture , and veterinary science . In the forties of this century , all these institutions - except the Medical School - were joined into Gordon Memorial College, which later formed the basis of the present Khartoum University . That period was signified by the direct affiliation of higher education in the Sudan to that of Britain . As from 1951 Gordon college was an affiliate to the University of London till the year of independence in 1956 where it became " university of Khartoum ." Besides university of Khartoum there were other few higher education institutions .

In fact the number of higher education students at that time (specifically the year 1955 - 1956) was very low - not exceeding 1633 students, 95% of whom were males . The period that followed the country's independence in 1956 did not witness a significant increase in higher educational institutions .

General education continued to expand without a corresponding expansion in higher education, a situation that resulted in a bottleneck at the top of the general educational pyramid. On the other hand, and as a result, higher educational institutions in the country led to the formation of an academic and social elite. Again, as a result of the colonial policies, the development of education in the southern Sudan took a completely different direction, from that in the North.

The evolution of higher education in the Sudan in the two decades that followed independence revealed a number of issues.

First, despite the fact that some increase in the number of pupils in general education took place (numbers increased from 348,500 in 1959 to 960,000 in 1970), illiteracy remained very high, and the number of university students did not exceed 0.7% of the total population by 1974 - a very low percentage. On the other hand, it was evident that the existing higher educational institutions did not provide the country with its needs of technical expertise - hampering the anticipated developmental leap proposed at the time.

The 1975 Higher Education Reform Act aimed mainly at adapting higher education to the needs of the changing society. The practices of institutions of higher learning before 1975 were described as being 'based on unadapted foreign models or directly implanted from systems that are completely alien to the local conditions.'⁽²⁾ Thus, in developing a high capability for problem-solving and rural development, two new universities were established:

i. the university of Juba - structured on colleges of natural resources and environmental studies , economic and social studies , and education.

ii. the university of Gezira - structured on economic , and social studies - with special reference to rural development . This development led to many results , the most important of which was the movement of higher education - for the first time - outside the capital city (khartoum) , to underprivileged states (Juba) or those with resources (Gezira) . In effect , an attitude of linking higher education to the developmental needs of rural states was beginning to take shape .

However , despite that progress , we find that the increase in higher education opportunities was still very small . The number of the university of Gezira students , for example , did not exceed 1000 students during the period 1978 to 1989 . Thus the gap between the number of students sitting for the secondary school certificate and those admitted to universities was still very wide . However , this situation led policy makers in higher education to raise certain questions . Of these was the question of how can we relate higher education planning to the economic plans of the state . This question was mainly concerned with the number of professionals and technocrats needed and the relation of that to the numbers and specializations of higher education graduates ; and the effects of all that on issues such as unemployment and shortage of certain needed specializations . Again , as an offshoot of such type of thinking , that period witnessed the rise of many union activities of professionals demanding a better share in the evolving market system . In fact , to understand the relationship of higher education to its environment , we need to understand the changing environment outside

need for qualified professionals and technicians . This policy emphasized the relevance of higher education to the social , economic and cultural characteristics of the country . The application of these policies resulted in the quantitative as well as the qualitative changes in higher education that characterized the period of the passing years of the 1990` s . The practicalities of these policies and their developmental connotations are still under scrutiny . However , it may be useful to have a closer look at their different connotations .

1. Expansion in higher education: the question of quantity and quality:

As a result of the above mentioned policies the number of higher education students in the country increased from 25750 in the year 1990/1991 to 130048 in the year 1995/1996 (seetable 1) . The number of universities increased from five universities in 1990 to 26 governmental universities in 1997 , besides other two private universities and 21 private colleges . This rapid increase resulted in two major results : Higher education is now geographically distributed throughout the country and not concentrated in the capital city as before . This is seen as one way of developing the areas homing higher education institutions , through provision of higher education opportunities and research activities of the universities . As an accompanying admission policy to this objective , 20% of yearly admission quotas to universities outside khartoum are now reserved for the students of least developed states . Due to this policy competition for these seats is confined to students of the least developed state where the university is located (competition for higher educational opportunities is on a national basis in Sudan) . Again , some seats in scarce specializations (e-g medicine and



engineering) are given to students of least developed states in all universities where these specializations are available . In fact these arrangements are meant to minimize the inequality differential between different states with respect to access to higher education opportunities .

In 1992 , the " National comprehensive strategy " , came into being . This is a 10 year plan (1992 - 2002) for all sectors , higher education being one . The main objectives of the strategy were :

- i) To link higher education with the overall development of the country.
- ii) To update curricula . This includes both updating curricula to incorporate modern advances in different areas , and adapting these curricula to the specific needs of the society .
- iii) Developing specializations that satisfy the developmental needs of different states .
- iv) Training of staff , and higher qualified manpower .
- v) Encouragement of scientific research .
- vi) Development of technical education .
- vii) Increase of the number of students in higher education institutions by 400% .

In fact , these guiding principles shaped the development of higher education in the country in the last six years of the strategy . It can be seen from the above mentioned objectives , that a high increase in the number of higher education students is emphasized . But , at the same time many aspects of developing the ' quality ' of higher education are emphasized as well . In following the progress of this process , we find many supportive changes for the objectives of the strategy , despite some difficulties . First , there is a significant increase in the number of higher



education students as mentioned earlier . The percentage of those admitted to universities from those sitting to the Sudan Certificate rose to 27% . University students constitute 2.7% of those at the age group 19 - 24 years . This is a big jump . from the before insignificant percentage . Second , it seems that the higher education strategy could achieve a reasonable linkage between the educational plan and the economic plan . University graduates in different professional disciplines make the base of many economic enterprises .

As a result higher education could effect a qualitative and quantitative change during the first half of the strategy , despite the fact that many universities faced financing difficulties . This above mentioned linkage , however , showed some positive results , the most important of which are :

- i. Universities - as a result of trying to come in terms with the requirements of the strategy - could develop their own sources of finance , and a better mechanism for the best use of scarce resources .
- ii. Higher education is now more in touch with rural areas . In many universities certain programmes have been developed to cater for the needs of rural areas .

A " National council for Higher Education " , was established to follow execution of the plan . It's main functions include formulating policies for higher education in the Sudan and assessing progress in the execution of the strategy . It is composed of all university vice chancellors , heads of university assemblies , and personalities from the society . The council achieves its evaluative and assessment functions

through advisory committees , that give advice on curricula & other academic affairs . These came to be known as the " scientific committees " . This arrangement is one way of formulating quality standards for higher education on a national level .

2- Research:

Research is a basic avenue for harnessing science and technology for economic and social development . As stated in the National Comprehensive strategy , encouraging scientific research is one objective of this strategy . However it is difficult to evaluate precisely the status of research in different universities . But it is evident that the major research activities in higher education institutions is carried out through postgraduate programmes (Masters and Ph . d)

The number of postgraduate students in different higher education institutions increased from 1929 in the year 1991/ 1992 to 10.133 in the year 1995 / 1996 , a very big jump . However , there still remain the problem of the relevance of these postgraduate researches to the actual developmental problems of the country , and the question of the guidance of research to policy . Despite these difficulties postgraduate research in higher education institutions proved to be an efficient vehicle for training of academic staff and professional personnel of government institutions , thus contributing positively to capacity building and development of human resources

3- Financing higher education :

Financing higher education in developing countries is one of the recurrently mentioned limitations to development of higher education in these countries . This is evident since competition for the overall utilization of national resources entails many policy compromises given the scarcity of these resources in the first place . In fact the tradition of finance for higher education institutions as represented in university of Khartoum , was asomewhat complete dependence on government funding . However , and due to the subsequent increase in the number of universities , this trend proved to be both unreliable and aburden on public expenditure . As shown from table (3) it can be seem that , despite the big increase in the number of universities in the period from 1990 to 1996 , government funding for higher education remained nearly constant . This means that universities are now expected to seek other sources of finance .

Higher education institutions in Sudan , with respect to ownership and finance are two types :

- a- Government higher education institutions .*
- b- Private higher education institutions .*

a- Government higher education institutions : these include government universities and other higher education institutions . These are nearly funded from public funds (about 98%) . Although universities are now trying to diversify their sources of finance , through different fees and the establishment of some productive units in universities , but still public finance makes the greatest part of the university budget . This situation makes universities highly responsive to any impinging financial

constraint . These sums of money are distributed to higher education institutions through the higher education financial committee - an offshoot of the national council for higher education . This committee is executively represented by a general directorate in the ministry of higher education . However , the role of the committee was and is mainly confined to finding government funding and distributing it to higher education institutions using certain criteria , without working positively to develop and diversify sources of finance . This is considered to be a major concern for universities .

b- Private higher education institutions :

These are either owned by individuals , groups of share - holders , or families . Private institutions now contribute to about 18% of the total number of higher education students in the country . These private institutions depend mainly on student fees . Financial contribution of the owners is confined to the establishment stage . They do not receive any government support hence they relieve the public treasury while contributing to the provision of higher education . Quality is controlled through the continuous follow up of the Private and Foreign Higher Education Committee ; one of the committees of the national council for higher education .

It is observed that higher education institutions in the Sudan do not get a significant financial support from the industrial sector or the private sector in general , as the case in many other countries . This is despite the fact that these sectors are direct beneficiaries from higher education graduates . Neverthe less their contribution to the cost of



higher education is rather meagre . This situation , however , leads to many results , the most important are :

i. We don't find a problem of industrial funding influencing the autonomy of higher education institutions , as the case is in industrial countries .

ii. The absence of a direct relationship between research units in universities and the productive sectors . This led to that areas of research were , in many cases not directly related to the actual problems of these sectors . This means a lesser role of research in guiding development in these productive sectors .

To cope with their financial constraints higher education institutions sought many refuges , some of these are :

i. Public support : through fund raising , by addressing communal sentiments . The out come , however , is not great .

ii. Support of state governments , mainly the new universities - though national - found great encouragement from states outside the capital . These states contributed in providing and supporting the establishment of new buildings , topping staff salaries (some times by 100%) , and taxing some products to facilitate the provision of some revenue for these universities . However , this type of support has not been institutionalized yet , thus giving it a temporary outlook .

iii. Investment : Most universities tried to initiate some enterprises that provide a source of revenue .

iv. Student fees : this took the form of additional seats for certain fees , short courses , and extramural studies . The revenue of these activities is supposed to subsidize regular students . This approach showed



many successes , particularly with respect to extra - mural studies and continuous education .

Another area of great financial pressure is that of student accomodation and sustainance . By the beginning of the 1990's this was a major constraint to the development of the higher education system in the country . Some universities spent more than 60% of their budgets on items as accomodation , food , and other welfare activities . However , in 1992 anational student support fund was established . The aim of the fund was to seek resources from the government and other sectors of the society to cater for the accomodation and sustainance of higher education students . Universities are to pursue academic activities only . This policy , led to that the newly established fund was in a position to concentrate on these welfare activities , thus making a good contribution to the expansion of higher education that followed .

These measures , however , were some sort of coping mechanisms to the financial limitation of the development of higher education in the Sudan . It will be a pre-mature attempt to give final conclusions , but in general , they proved to give some practical solutions .

Conclusion ; coping in achanging environment :

Higher education in the Sudan was lucky to find a great deal of attention, despite the multi-faceted problems of a developing country . This was mainly due to the availability of highly qualified academicians who bothered to anticipate , plan and evaluate . However , lack of resources , and the unability to better utilize the available ones was



always a handicap . It is nothing peculiar to the Sudan as a developing country , however . What happened in the last seven years , ostensibly , was an attempt to find alternative ways of facing problems . To understand the manifestations of these processes , one has to consider the changing internal and external environments , that affect higher education . Changing economic factors , inside the country are reflected in one way or another on the changing labour market , the status of professionals in the socio - economic scale , migration of professionals and academics etc . The policy of privatization adopted by the country during the last few years , is beginning to affect the development and evolution of higher education institutions . This produced some coping mechanisms like encouragement of private education , contribution of well - to - do students to the cost of education etc . This again raised questions of equality in higher education , poor students being in a disadvantaged position . This resulted in the initiation of other forms of supporting institutions (like the student support fund and other voluntary associations) .

Again , the structural changes that are reorganizing the society , necessitated the adoption of more relevant solutions to ever - cropping problems . Higher education institutions had to change their internal structure (with respect to curricula , management and organizational relations) . Financial constraints were always at the forefront . But one positive result was that higher education institutions were forced to abandon the traditional way of looking exclusively for governmental support . However , institutionalization of the emerging other alternatives and the continuous looking for other ones may be one way of



meeting the challenge. However , still the adaptability of higher education , is some way behind changes in the society . This , however , does not cancel the dynamism of higher education in the country . But it seems that higher education is faced by the problem of better use of the available resources .

More coordination is needed between higher education and other participants in its environment . Again , what happens locally is not isolated in any way from what happens worldwide . The challenge of 'quality' is one of satisfying local needs without lagging behind what is made available by international contribution . This , actually is the new move , now underlying planning for higher education in the Sudan .



References

- 1) cf. Brubacher , J. s *On the Philosophy of Higher Education* - Jossey
- Bass Publishers , London , 1977 , P. 3 ff.
- 2) cf. sanyal , Yaici & Mallasi 1987 " *From college to work : the case
of the Sudan .* " IIEP , UNESCO
Publishing , Paris , P. 17 .
- 3) sanyal , b.c. 1995 " *Innovations in university management* " ,
IIEP , UNESCO Publishing , Paris , P. 17 .



Table 12:

Number of students admitted to Higher Education institutions in Sudan classified according to ISCED for the period 2001 to 2007

FIELD	20/01		21/02		22/03		23/04		24/05		25/06		26/07								
	Total	%	Total	%	Total	%	Total	%	Total	%	Total	%	Total	%							
EDUCATION	617	1106	56	1397	2318	60	1854	3563	52	1752	3403	51	1899	2891	27	1909	3197	60	3546	5318	67
SCIENCE AND TEACHER TRAINING	1438	3651	40	2310	4606	50	1626	3484	47	1979	4395	45	2030	3996	51	2039	3948	51	2042	4039	51
HUMANITIES, RELIGION AND PEDAGOGY	266	787	34	66	216	31	197	500	39	52	117	44	125	186	67	39	120	33	67	165	41
FINE AND APPLIED ARTS	824	2501	32	1037	2696	34	480	1403	34	1264	2979	42	1699	3110	55	1850	2936	54	1250	2735	46
SOCIAL AND BEHAVIORAL SCIENCES	579	1044	53	602	1897	32	776	2290	34	757	2071	37	510	1866	54	631	1853	34	566	1438	39
COMMERCIAL AND BUSINESS	1246	2536	49	1156	2806	41	359	748	48	870	2076	42	769	1416	53	688	1645	42	875	2058	43
ADMINISTRATION AND MASS COMMUNICATION	0	0	0	254	1007	25	390	1040	38	502	1101	46	482	881	55	423	1012	42	426	1004	42
DOCUMENTATION INFORMATION SCIENCE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DOMESTIC SCIENCE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NATURAL SCIENCES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FIELDS OF STUDY	511	1184	43	89	266	39	225	545	41	358	957	37	378	821	46	419	885	47	701	1286	55
MATHEMATICS AND COMPUTERS SCIENCE	201	727	28	213	844	25	217	676	32	279	542	51	373	74	48	326	672	49	351	833	42
MEDICAL SCIENCE AND HEALTH-RELATED	282	615	46	754	1607	47	1039	2084	50	721	1537	47	936	1658	52	879	1726	51	1036	1811	57
ENGINEERING	159	1091	15	182	1279	14	263	1900	14	319	1841	17	352	2033	17	443	2407	18	388	2023	19
ARCHITECTURE AND TRAINING TRADE, CRAFT AND INDUSTRIAL PROGRAMS	41	101	41	39	136	29	61	200	31	51	140	36	59	151	46	46	105	44	1510	2860	51
TRANSPORT AND COMMUNICATIONS	0	0	0	0	0	0	5	31	16	0	0	0	0	0	0	0	0	0	0	0	0
AGRICULTURE, FORESTRY AND	281	1035	27	866	2534	37	1345	2994	42	1303	2772	47	1315	3634	50	730	1378	53	1510	2960	51

Table (2) staff - student ratio in the period 1987 - 1996

Academic Year	No of students	No of staff	staff student ratio
1986 - 87	20.215	1506	1:13
1987 - 88	20 - 761	1627	1:13
1988 - 89	23.626	1616	1:15
1989 - 90	23.375	1850	1:13
1990 - 91	34.853	1723	1:20
1991 - 92	49.764	1643	1:30
1992 - 93	67.525	1118	1:60
1993 - 94	116.204	3575	1:33
1994 - 95	120.844	3077	1:39
1995 - 96	132.884	3161	1:42

General Directorate of Planning - Ministry of Higher Education and Scientific Research

Table(3) Percent of public support to higher education from GDP and public expenditure (in million sudanese pounds)

Year	GDP	Public Expenditure	Public support to higher education	% of Support from GDP	% of Support from public expenditure
1989 - 90	100844	12159	431.6	0.4	3.5
1990 - 91	190838	15859	870.1	0.5	5.4
1991 - 92	401813	53446	1400.0	0.3	4.3
1992 - 93	850090	98941	3500.0	0.4	2.2
1993 - 94	1753563	162538	8500.0	0.4	5.3
1994 - 95	2974102	-	15.000.0	0.5	5.9
1995	4133657	-	12.000.0	0.2	2.2
1996	10217502	-	40.851.0	0.3	4.3

Source : Ministry of finance , Ministry of Higher education .

