

CEAR

(Centre for Econometric and Allied Research)
UNIVERSITY OF IBADAN, IBADAN
NIGERIA

NPC/UNDP/UNDES PROJECT
NIR 187/009 PERSPECTIVE
PLANNING FOR NIGERIA

REVIEW OF SECTORAL STUDIES FOR THE PERSPECTIVE PLAN

[TECHNICAL REPORT PP93-03]

BY

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[STRICTLY FOR INTERNAL CIRCULATION WITHIN PROJECT IMPLEMENTATION TEAM]

AUGUST, 1993

PREFACE

The implementation of this project involves collaboration between the National Planning Commission of the Presidency [NPC] as the Commissioning Agency; the United Nations Department of Economic and Social Development Programme [UNDESD], New York; the United Nations Development Programme [UNDP] Lagos; the Centre for World Food Studies [SOW-VU] Free University Amsterdam, Netherlands; and the Centre for Econometric and Allied Research, [CEAR], University of Ibadan, Ibadan, Nigeria.

The purpose of these series is to provide hard copy documentation of the results and output of aspects of project implementation for which the CEAR is directly responsible or for efforts initiated at CEAR. It is also intended that the series would serve as reference manual to facilitate adaptation and application of results to the needs of the NPC on a continuing basis, long after the completion of project execution.

In 1992, five Technical Reports, [PP92-001 - PP92-005] were produced under the series. Documentation of CEAR's output in 1993 as a continuation of the series begins with Technical Paper No. PP93-01.

In this Technical Report [PP93-03], we present a full documentation of our assessment of the Sectoral Studies commissioned to provide inputs for the drafting of the Perspective Plan. The evaluations are in three categories in respect of each sector covering, our review of the draft initial reports, draft final reports and final reports submitted by the various consultants. These evaluations were intended as a means of monitoring and influencing project implementation on each sector.

They focus on areas of shortcomings in the implementation of the Sectoral Studies and in the reports submitted as inputs into the plan, in order to guide overall plan formulation regarding what additional inputs may be required in respect of each sector, and how to set about filling such gaps in the draft plan, and its subsequent future revisions.

Any shortcomings left in this Technical Report remain the sole responsibility of CEAR.

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SECTOR: Communication Services

CONSULTANT: Leccom Associates

**REVIEWERS: Akin Iwayemi
 Wale Ogunkola**

Review of Draft Final Report

I(a) Scope and Work Content Envisaged

One of the primary objectives of this study was to provide comprehensive survey for the communication sector by not only assembling existing data but also obtaining additional data.

(b) What was Implemented and Suggestions for Further Work

The efforts of the consultant at providing current information on the sector is appreciated but there is a lot of room for improvement especially when the purpose of this study is taken into consideration. For instance, Table 2.1.1 which provide data from 1956 to 1990 does not provide information about subscribers. In this type of study while aggregate information have their place, we rely more on detailed and comprehensive information. How many subscribers are private individuals, or business enterprises, or government agencies? Sources of information are not indicated in almost all the tables. These are necessary not only to cross-check facts but also appreciate the efforts of the consultant.

Generally, apart from the presentations on government policy and funding the requirement of the study to provide specific government policies and programmes which would lead to the more desirable production scenario was not implemented. This is an example of disjointedness of presentation which will be referred to later.

Finally, the consultant seems to be guided by existing amount of information available on the sector thus limiting the analyses to information on government established information, as activities of the private sector was not given prominence. There is need for the consultant who is assumed to be an expert on the sector to provide detailed and comprehensive information on the "state of the art" of the activities in the sector.

II Detailed Terms of Reference

(a) TOR(1) requires a review of the past evolution of the communication services. Information are required on the demand and supply, and prices among other things. Comparison are expected to be made with users in a representative African economy and an industrialised economy. Government's role should be equally analysed.

This was adequately executed especially where existing data are robust. In other words the consultant was limited by available data. The area of comparison with a representative African economy and industrialised economy need to be presented and developed. Government role was adequately covered.

- (b) TOR(2) requires a survey to be conducted, with the assistance of the FOS, to determine the representative unit cost of production.

This seems not to have been executed apart from the comments on the field surveys in paragraphs 007,008 page (iii). The survey was not used in the presentation. What is contained in the Volume of this Report was purely on economic analysis and demand forecast models for the communication services in Nigeria. Hence it dealt with TOR (4a to d). This survey is critical to a meaningful analysis of this sector given the perspective of the study. The claim that a model other than SAM is needed for Perspective Planning in the communication services may not be correct. There is an urgent need for presentation of data from the survey as required by the (TOR e).

- (c) TOR(3) requires a summary break-even analysis for the sector.

This was not covered. Perhaps, because the survey of TOR(2) was not successful. We strongly recommended that TOR(3) in conjunction with TOR(2) should be covered.

- (d) TOR(4a) requires a demand forecast for communication services in the country.

This was adequately covered

- (e) TOR(5) requires the outline of specific government policies required to make the more desirable production scenario among those examined in TOR(4).

This was not covered.

III Overall Evaluation and Recommendation

- (i) The study has accomplished quite a lot by analysing existing information.
 - (ii) The study has not tried to provide additional required information apart from those available from secondary sources.
 - (iii) Survey and other related matters seem not to have been accorded its rightful place.
 - (iv) The report of the study was presented in a disjointed manner it is obvious that different groups were hired to conduct this study which may not be a bad idea. However there is need for harmonization of the various sections into a single report.
- In conclusion, it would be helpful if the Final Report can take advantage of these comments and suggestions.

SECTOR: **Desertification and Soil Erosion**

CONSULTANT: **Samaila Consultants Limited.**

REVIEWERS: **Saa Dittoh**
 Bayo Aromolaran and
 Thompson Adeboyejo

Review of Interim Report

I. General Comments

The interim report indicates that much effort still needs to be put into implementation of the project by the consultant. The statement on page 20 (section 3.3) by the consultant that "data and information received so far are predominantly theoretical in nature with very little observation work that covers whole regional settings" is an evidence that the consultant himself recognises this fact. The rest of the report shows that the consultant is yet to lay hands on any useful and relevant data and information from the field. This is quite understandable given the fact that this report may have been partially completed prior to the May workshop.

II. Conformity with Terms of Reference (TOR).

The consultants are yet to cover the bulk of the work area envisaged under TOR. TOR (i) says that all existing information on desertification and soil erosion in the country should be reviewed. There was hardly any review done as clearly indicated in chapter three of the interim report. The consultant seem to have deliberately left any review in this interim report. Simply stating, sources of information as in chapter 2 and Appendix c can hardly be taken for a thorough review of existing information. One also wonders how relevant Appendix d is in the interim report since it hardly provides any information of importance.

The information in appendix E is quite relevant in tackling TOR (v) but also serves as a pointer to the amount of grounds that still need to be covered. Some of the aspects that would require attention would for example cover issues such as: What areas of land are involved in each of the control projects? What problems were encountered and which were either solved or still exist, just to illustrate with a few. Simply stating money spent on projects is of very limited importance. Also under "status:, what is meant by "A" and "B".

TOR (ii) to (iv) and (vi) have not been touched at all.

III. Amount and Sustainable of Statistical Data:

There is still much room for presentation of relevant statistical data. The rainfall information presented on page 29 has not been discussed in the write up and one wonders over how many years the averages were taken and how relevant the information is. Information on rainfall patterns is important but an ambiguous average figure is definitely of very limited importance.

The diagrams from pages 31 to 40 appear to be directly from J.O. Akintola (1989): Rainfall Distribution in Nigeria 1892-1983 with very little discussion on them. Some measure of analysis of the rainfall patterns and their relationship to desertification and erosion control would be quite useful.

IV. Amount and Sustainability of Non-Statistical Information

The diagrams on page 23 to 25 showing shelter belts and forest reserves are quite good but again there is hardly any discussion on them as to their relationship with the problems of desertification and erosion control.

V. Promise of Further Work Envisaged

There is definitely a lot more work to be done as discussed above. It would be necessary for this to be taken cognizance of and reflected in the revision of the study programme (Figure 1, page 2). According to the revised programme, analysis of data would have taken place in August 1990 but going by the interim report and what had been done by April, this would not have been possible except if more work had been done but not reflected in the interim report. There might be the need to have a meeting with the consultant to discuss and be able to elaborate on these observations.

VI. Overall Evaluation

Our observations notwithstanding we would like to recommend that the report be accepted to enable the consultant proceed to implement what was agreed at the May workshop prior to which this report must have been written. The consultant may benefit from access to an experienced economist, agricultural economist, geographer or any one whose discipline borders on socio-economics.

Review of Final Report

I Scope and Work Content Envisaged

(a) The study was to cover:

- (i) Desertification
- (ii) Soil Erosion

What has been Implemented:

The study did cover to a considerable degree these two areas even though it seems "to be scratching only the surface" as rightly noted by the consultant himself. The study of desertification and soil erosion cannot be satisfactorily done without proper evaluation of samples of desert encroachment and erosion spots in the various ecological zones of the country. That was not done to any significant degree.

(b) The study was meant to:

- (i) Review all existing information on desertification and soil erosion in the country to identify the types, causes and extent of the problems;
- (ii) Determine the rate of desert encroachment and soil erosion for the past 30 years and
- (iii) Project the total land area likely to be affected or threatened in 15-20 years of present policies continue.
- (iv) Review past federal, state and local governments measures at dealing with the problems as well as the experiences of other countries and to make suggestions to redress the situations.

What has been Implemented

A very good attempt has been made to meet the requirements of the terms of reference. Even though the consultant did not implement some of the suggestions made in our earlier comments, some significant improvements have been made. Much more relevant information on both desertification and soil erosion has been presented. A good attempt was also made to cover more ecological areas of the country. The Final Report has also been better edited.

II Detailed Terms of Reference

TOR 1: "Review all the existing ... throughout the country".

Expected Implementation

A thorough review of existing information on the sector with the main aim of identifying types, causes and extent of desertification and soil erosion in the country. It was expected that LGAs affected, threatened by or prone to these problems would be identified.

What has been Implemented

Quite a good review has been done. The consultant has now also covered Anambra, Enugu, Imo, Abia and Akwa-Ibom states in addition to Sokoto, Kastina and Kano in the review. That is commendable. Also commendable is the information given on almost all hydro areas in the country in Table 4.3 and 4.4.

TOR 2 and 3

- (i) "Determine the rate ... of the phenomena."
- (ii) "On the basis of the rate ... social consequences."

Expected Implementation

It was expected that the rate of desertification and soil erosion in sampled or selected states of the federation would be determined. It was also expected that losses of arable land will be estimated and projections made of the likely losses over the plan period.

What has been Implemented

Our dissatisfaction with the way the consultant handled this aspect of the study has been discussed with him and with our clients, the National Planning Commission. Even though we still believe much more work

could have been done with whatever funds were made available to the consultant, we accept that some useful information has been made available in line with the TORs.

TOR 4 and 5

- (i) "Review what is ... expenditures involved".
- (ii) "Review (a) the past ... measures were successful".

Expected Implementation

Comprehensive reviews of the extent of loss of available land in areas covered by federal, state and local governments anti-desertification and anti-erosion programmes and projects. In particular it was expected that there would be detailed discussions of budgetary allocations and actual disbursements for the purpose of tackling the problems of desertification and soil erosion. Also a review of the experiences of other countries and the costs and a discussion of their implications were expected.

What has been Implemented

Chapter 5 of the report is supposed to have addressed these terms of reference. The consultant did make a good attempt but he did not still address many of the specific desertification and erosion control programmes. Our suggestion relating to obtaining information from federal and state yearly budget statements was ignored. The comparison with other countries is also very scanty and provides little information.

TOR 6

"Suggest, if relevant ... these issues".

The consultant has made some useful and quite comprehensive suggestions especially on the administrative and organisational frameworks for tackling the problems of desertification and soil erosion. He however still avoided estimating the costs implications of the suggestions. A very elaborate and elegant administrative and organisational framework could be the most cost ineffective one so without an estimation of the cost implications it is difficult to ascertain the usefulness of the suggested frameworks.

III Overall Evaluation and Recommendation.

In spite of our misgivings in several areas of the consultants work, it is obvious that some useful work has been done. Our emphasis has been that more extensive field work was required but given the fund constraints the consultant claimed he faced, we accept the final report of the sectoral study on desertification and soil erosion.

SECTOR: Education

CONSULTANT: Academic Planning Consultants

**REVIEWERS: Charles Iwunor
Thompson Adeboyejo
Sam Olofin**

Review of Interim Report

I. Conformity With Terms of Reference

1.1 It is very helpful to see the degree of importance that the consultant is attaching to data collection [p. 4; item 3.2]. This cannot be over emphasized in view of the importance being placed on the possibility of this study generating new set of data that are hitherto non-existent and yet would be crucial to the planning exercise.

1.2 It is important that in the implementation of the project that much of the available resource time and effort be devoted to the sample survey rather than relying on information from secondary sources which may be scanty or less than current. A detailed and painstakingly conducted survey would yield considerable amount of information for validating existing data, implementing them and filling in gaps where necessary or supplanting them.

1.3 In addition to the assumption of 2.5% growth rate in population (p.4), the consultant would need to collect information on other macro assumptions provided to all consultants by the Plan Coordinator from the Perspective Planning Unit (PPU) of the Federal Ministry of Budget and Planning. Any additional assumptions that may be required for the consultant's work not contained in the information supplied should be made by the consultant based on his expert knowledge of this sub-sector as long as such assumptions are explicitly stated.

1.4 It would be most advantageous if the consultant is able to extend his data collection to as far back as 1940 as indicated [p. 5]. This would provide a longer time series than was envisaged in the given TOR and would aid the process of estimating models for projections immensely. One however doubts if there would be much available information from non-published sources for the early periods.

1.5 The envisaged sources for secondary administrative data [pp. 5-6] is quite comprehensive if all of these can be followed up thoroughly.

1.6 Of the 21 states and the Federal capital territory only 4 are being selected through a zoning system which divides the country into 4 rather large and possibly non homogenous zones. This is not likely to provide a representative coverage. Determination of size of sample and sampling locations would be better done by referring to sampling frame which may be obtainable from the FOS. A representative sample would be important to being able to derive population magnitudes from sampling information. It would be necessary

to state the methodology that would be employed for this purpose as well as for the projections in addition to the sketchy outline [pp.8-12] which we view as tentative.

1.7 Rather than adopting the format on (p. 12 - 13) for the presentation of the report, it would be preferable for the purpose of harmonizing the inputs from the various sectoral studies to adopt a common format as suggested in the given TOR. In other words the eight TORs should form the basis for developing eight or less chapters in the order of sequence in which the TOR are stated.

1.8 There is ample evidence from the presentation in chapters 3 and 4 (pp. 14 - 37) that the consultant intends to follow the given TOR and conduct a thorough study. Much of the material in these two chapters provide adequate sketch of the full scale review intended during the full implementation of the study.

II. Amount and Suitability of Statistical Data Presented

Some relevant projection statistics were presented though with little or no information provided as to the method by which the projections were arrived at. It is most likely that these are projections from earlier studies and from existing sources. It would be necessary to compare these projections to the ones to be based on the new and more current findings of the current study. It is important that the methodology for the projections and their underlying assumptions be fully documented. This is needed for meaningful utilisation of the figures when required as inputs into an overall macro framework of the plan.

III. Amount and Suitability of Non-Statistical Information Made Available

This is sketchy but sufficiently indicative of what to expect when the project is implemented in full.

IV. Evaluation of the Promise of Further Work Envisaged

The consultant appears highly motivated, and well equipped to implement the study successfully.

V. Overall Recommendation

We recommend that the consultant be provided with the necessary funds to enable him commence the full implementation of project in earnest. A self - limiting attitude was adopted towards the survey such that it was not expected to yield any new meaningful and useful set of information. The consultant's preference for relying on information available secondary sources perhaps led to less emphasis on resource time and effort being devoted to the survey. There is not much evidence that the survey yielded much of new additional useful information that is not already available in existing secondary sources. It would be necessary to rectify this as much as possible before the presentation of the next report. This is the most valuable contribution or inputs expected from these sectoral studies, and to which a greater proportion of resource time and effort ought to be devoted by the consultant. It was also expected that from the sample survey data it would be possible to obtain population estimates for key variables. Given the poor sample base, this objective may be difficult to realize.

Review of Draft Final Report

General Remarks

The report shows the consultant actually took pains to conduct indepth desk research into educational development in the country. The report seem to have adequately addressed nearly all aspects of the educational system as well as the myriad of problem affecting educational development in the country. The report contains a lot of cross-sectional and time series data on the different levels of education as well as the different aspects of the educational system.

It is however, important to point out that the report does not seem to be logically organised or arranged. The numerous far-reaching policy recommendations and suggestions contained in the report are not properly highlighted for special focus, but are sustained under descriptions of current estimation, patterns and trends. Separate sections under each chapter or heading should have been devoted to suggestions and recommendations.

The basis for obtaining the different projections contained in the report are not explicit. The consultant has not provided justification for the several assumptions underlying the different estimates and projections contained in the report. There are methodological problems arising from the handling of certain aspect of the study.

Observations:

(1) Details of the sample design used in selecting the schools covered in the survey is not explicit. It is not unlikely that they might have been selected by intuition and as such may not be representative of the target population. No where in the report is the results of the sample survey purported to have been conducted presented. The aim of the survey is also not stated in the report. Maybe the consultant collected only supplementary information during the survey through unstructured interviews and observations. Questionnaires or forms might not have been administered!

(2) On the question of collecting time series data extending as far back as 1940, We believe this may not be feasible in a country like Nigeria where collection and compilation of statistics is a recent phenomenon. We are convinced that the consultant did a good job in terms of collecting and compiling historical data on the different levels of estimation as well as the different aspects of the educational system.

(3) The consultant seems to have devoted a disproportionate proportion of the report in describing education with little space devoted to presenting relevant data on the present level of and future trends in the performance of the different levels of education.

It is necessary for the consultant to provide extensive data on the current levels and future projections of the following quantitative and qualitative indications for each level of education by state:

- school age population by age
- school enrolment ratio by age
- repetition rate by grade
- drop-out rate by grade
- educational attainment
- number graduating
- pass rates or failure rates in the different end of programme examination by level of performance

- pupil-teacher ratio
- pupil-classroom ratio
- recurrent cost per trainee
- capital cost per trainee
- average cost of teacher by grade
- average recurrent cost per trainee borne by parent or guardian
- average capital cost per trainee borne by parent or guardian
- proportion of total budget (public expenditure allocated) allocated to education.
- proportion of privately owned and in annoyed schools
- distribution of teachers by qualifying experience, etc
- arrange number of trainee per fully equipped standard laboratory unit
- proportion of school with library containing:
 - under 1000 books
 - 1000 and under 5000 books
 - 5000 and under 10000 books
 - 10000 and under 50000 books
 - over 50000 books

(4) The basis for projecting potential emolument into the different levels of education seems faulty. Enrolment at each level is projected by applying the projected school enrolment rate at each age for each level of education, by place of residence, state, etc, to the projected appropriate school age population and adding up over the ages as may be required. It is equally necessary to examine different scenarios of the pattern of school enrolment putting into consideration specific policy objectives in view. Projections of school enrolment provides the basis for projecting school, classroom and teacher requirements. Plans for provision of other educational facilities are also based on school enrolment projections.

The implications in terms of capital and recurrent costs can subsequently be estimated.

To obtain estimates of the actual number of children or students enrolled in the different levels of education which is more important for proper management of the educational system, the what-component method or cohort analysis is appropriate. Aside from providing estimates of enrolment, this method is useful for estimating repetition rates, drop-out rates and levels of educational attainments.

(5) In the absence of adequate administrative data on nursery schools, day care nurseries and other pre-school education institutions, extensive and intensive sample surveys are expected to provide the necessary information required for planning at this level.

Educational planning at this level should put into consideration such factors as

- Fertility levels
- infant/child mortality rates
- Women labour force participation rates
- nature and place of work of women of child bearing age
- proportion of educated women of child bearing age
- family income.

(6) The consultant extensively discussed the issue of funding of education in the country. This is an important area that calls for indepth study. The problem of inadequate funding of education in the country will continue to remain a serious problem for as long as population continues to grow. There is need for specific recommendation based on proper analysis of relevant data relating to the levels of and the modalities for funding education at the different levels. The roles of the federal, state, and local governments as well as NGOs should be properly spelt out. The issue of cost recovery and the modalities for achieving the various targets should be properly addressed.

(7) The report did not adequately address the issue of high labour turn over or wastage among teachers in the different levels of education. There is need to present data on these as well as the result of analysis of the pattern of wastage of teachers through retirement, resignation, death, etc, for the different levels of education. Actuarial technique have been found useful in this regards.

(8) The formula used in compiling the average cost of teachers and the average cost of a non teaching staff is expected to be a sort of weighted average with number of teachers in the different grades as the weights. The number of teachers in the different levels of education should be determined on the basis of the teacher/pupil or student ratio and the desirable matrix of teachers with different levels of education.

(9) The report does not touch on the spatial distribution of educational institutions or facilities. The issue of urban-rural disparity in the availability of educational opportunities is not properly addressed. In deciding the location of educational institutions such factors as school age population, optimum number of children per school, average distance of the nearest school away from home (number of school per 5 kilometre radius or per LGA), etc. have to be considered.

(10) It is necessary that the consultant clearly specifies the assumptions underlying his projection of the recurrent, capital and total costs of providing university education in the federal and state universities. The same applies to polytechnic, colleges of education, and others.

(11) The report is silent on the issue of the level of staffing and the quality of staff in tertiary level educational institutions. It is necessary to provide detailed data on the number of academic staff in the universities, polytechnics and colleges of education by qualification, grade, discipline, etc. This is important because most of these institutions are known to be under-staffed, particularly in certain key disciplines.

(12) Even though the consultant made a good attempt to explain the interlink between education and technological development, he failed to touch on apprenticeship training which is an important aspect of technical and vocational education. Apprenticeship training is also an important vehicle for transferring or acquiring skill and technology.

(13) In view of the high illiteracy rate in the country particularly among adults over 21 years, it is necessary for the consultant to suggest strategies for raising emolument and enhance retention of persons enrolled in various adult education programmes.

The issue of access to and availability of adult education centres should also be properly address if the target of education for all by the year 2000 is to be realised!

On the whole, the consultant demonstrated indepth knowledge of educational development in the country. Past and current education policies and programmes have been critically reviewed, the problem militating against successful implementation of education plans have been highlighted and suggestions and recommendations proffered. Aside from lapses in the in the methodology adopted in arriving at the projections, the report is well researched, highly informative and educative.

Review of Final Report

Scope and Work Content Envisaged:

The study was to cover the Education sector at primary, secondary and tertiary levels as a component of the 15-20 year Perspective Plan for Nigeria.

What was Implemented:

The study adequately covered these broad areas and touched on related issues such as adult and non formal education, women education and special education etc.

Details of Terms of Reference:

TOR [I]:

Expected Implementation:

To prepare a historical review of the educational system of Nigeria at the various levels since 1960.

What was Implemented:

The consultant reviewed the educational system since 1912 to the present with relevant statistical information. Except for reference made to a non-existing table 3 on page 27 section 4.6, the historical review covers expected areas.

TOR [II]:

Expected Implementation:

Examine whether the population categories developed by specialists are adequate and if not, suggest how they could be complemented for use.

What was implemented:

These population categories already developed by specialists in charge of population were used extensively for both descriptive, analytical and projection purposes. There is no where in the report where the question of their adequacy were examined or addressed. If the extensive use of this population categories is meant to prove their adequacy, this should have been stated explicitly in the concluding remarks.

TOR [III]:**Expected Implementation:**

Conduct a survey into the number of graduates who successfully completed each stage of the educational level.

What was Implemented:

There is good discussion and analysis of the past, present and future trends in the number, enrolment, ownership and financing of education at different levels. Projections were also made on enrolment needs at different levels. However, the relevant data related to TOR iii is surprisingly absent in the report.

TOR [IV] & [V]:**Expected Implementation:**

Develop a methodology adapted to the Nigerian context to obtain yearly enrolment needs on each level of the education system. and

(v) apply the methodology in (iv) to arrive at projections of yearly enrolment needs for the 20 year period.

What was Implemented:

While projections on yearly enrolment needs were made at different levels for the period stipulated, all of these were based on policy measure/rates. For instance the consultant adapted assumed annual population growth rate of 3.3% to project enrolment in schools. Again annual dropout rates is assumed to be 5% , 3%, and 1% for primary, secondary and tertiary levels. The implications of this for the education sector is summarised in the consultant's own words "... educational projections based on such arbitrarily assumed growth rate is hazardous" [pg. 10. section 2.14].

We would suggest that past records of yearly enrolment as far back as at least 10 years or more would be an important consideration in developing a methodology to obtain yearly enrolment now. The result can be compared to any arbitrary assumption. Perhaps a separate chapter on TOR iv is essential, since it is fundamental to future educational requirements. It deserves more attention than what is given to it currently.

TOR [VI]:**Expected implementation**

- (1) To suggest new approaches to education particularly at the vocational and technical training level and
- (2) Distinguish between the type of education and skill requirement in rural as opposed to urban areas.

What was implemented:

The suggestions made are not significantly different from recommendations of the Implementation Committee on National Policy on Education (1990) or statement by National Educational Research and Development Committee (NERDC) or the Revised version of the National Policy on Education. The study did not make any distinction between the type of education and skill requirement in rural as opposed to urban areas.

TOR [VII]:**Expected Implementation:**

(1) To contrast numerically the implications of two or three different educational financing systems.

What was Implemented:

The consultant did a good job by presenting detailed discussion of what is expected in the TOR here, the discussion however lacks the tabular presentation for statistical comparison.

The expectation in the TOR are well covered in the discussion.

Comments.**Methodology:**

(1) The basis of zoning the states of the Federation remains suspect. Also the method of choosing the sample states and the various institutions selected for data coverage in each state should be spelt out. This is necessary to establish a sound scientific basis for the findings of the study. Data sample frame/size must be shown to represent the country, otherwise the findings and recommendations of the study will be relevant for only the zones/states covered.

(2) While we do not see the rationale for the outdated and only one illustration on page 13 [for reason explained on page iii], its contribution to the quality of a document of this nature is very much in doubt.

(3) It would have been more preferable for the consultant to develop each chapter on the basis of items of the TOR. This would ensure (a) harmony of inputs from other sectoral studies, (b) a format which would provide the discussion/analysis with greater focus and (c) a better evaluation of how far the specific objectives of the study have been met.

(4) A summary of findings or a concluding remark at the end of each chapter would have helped in tying together as it were the various issues in the chapters.

Amount and Quality of Statistical Data Presented:

Various projections (though based on arbitrary demand rates with unrealistic assumptions) were made and summarised in oversized tables. A graphical utilization of some of the statistical summaries would have facilitated a better understanding of the figures.

Amount and Quality of Non Statistical Information:

The non-statistical information contained in the report is quite adequate.

SECTOR: Energy and Hydro-carbons

CONSULTANT: UNIFECS Consultancy Services Limited

**REVIEWERS: Deola Adenikinju
Akin Iwayemi**

Review of Interim Report

General Comments:

There are two main comments on the progress report which is by and large a work plan, submitted by the consultant on **Energy and Hydrocarbon Resources**. The first comment concerns the content of their proposed study and the terms of reference (TOR). The proposed study from the work plan seems to focus largely on investment planning aspects to the neglect of the following issues.

(a) The existing relationship between prices and costs in Nigeria and a comparative analysis with other countries (one in Africa and another in the developed world as contained in TOR 1). These are important issues which we hope the consultant would give adequate coverage.

(b) The important role of the exchange rate in energy production, consumption, pricing and investment decisions since oil, natural gas and coal are tradables (exportable products).

The second comment concerns the time schedule for the completion of the study. The one year proposed is not practical in light of the completion of the main study of which this particular study is an input. We would suggest that the consultant should reschedule its work plan to submit at least a preliminary draft report by the end of the year in order not to create a major bottleneck for the main project. This draft report should endeavour to contain useful though preliminary results that can be used for the main study. We would advise them to liaise often with CEAR in relation to their work progress and any implementation problems they may run into during implementation.

We recommend that the progress report or study plan be accepted.

Review of Draft Final Report

The report has been presented in four volumes; the first volume presents a review of the historical trend of energy production and consumption from 1970-1990 while the results of a demand analysis over a twenty year period from 1987 to 2007 was presented in volume 2. In volume 3 the result of an energy supply optimization model have been presented while the final volume identifies the major energy problems and issues based on the analyses in earlier volumes and suggests policy recommendations for tackling the problems.

Comments

1. The report is quite detailed in its review of the historical trends of the energy sector. Very useful sets of data are also presented in the report. However, contrary to the terms of reference for the study which requires them to choose a base year for the review from between 1950 and 1960; most of the data presented started from 1970 and some of them end in 1987 instead of 1990 or 1991.
2. The renewable sources (hydro and wood) were not given detailed treatment as the nonrenewable fuels. Perhaps, this is due to the data generation problem in these sub-sectors. Nevertheless, the consultant could still endeavour to improve on the present treatment of the renewable sources of energy.
3. The basis of the sources for their energy resources estimates were not indicated. This seriously limits the confidence the policy makers can place on those figures.
4. The consultant did not adequately treat the issue of comparative analysis between prices and costs in Nigeria and other countries (one in Africa and another in the developed world as contained in TOR 1)
5. While the authors gave a good break down of investment requirement for the plan projection when carried out, they did not indicate as required by the TOR 2, the difference between planned investment and actual government allocations to the sector.
6. The study identifies the various issues which are relevant in the energy sector both for demand and supply analysis and useful recommendation for removing the underlying constraints were highlighted.
7. An engineering process model was used for estimating energy demand. This projected energy demand and uses on the basis of some socio-economic assumptions on population and GDP growth rate, energy intensities, etc. Relative prices of energy products were not however included in the model. This therefore prevents the consideration of substitution possibilities in energy use by the users. This is a major omission in the model.
8. A separate supply model but which utilised the information generated for energy use projection was also developed. It is basically an optimization model called MESSAGE II. While energy demand feeds into the energy supply, a mutual feedback relationship is neglected. In addition, the models have serious limitation for analysing the integration between the energy sector and the rest of the economy. Thirdly, while the energy sector is well treated, the rest of the economy is neglected. The impact of energy policy on government balances, the external balances cannot be simulated in such models.
9. And as noted in the review of the interim report, the role of exchange rate in energy production, consumption, pricing and investment decisions were not incorporated. This is important since oil, natural gas and coal are discussed.
10. The issues in the TOR 3 were not address in the report.
11. The survey was also only limited to households which were taken from 5 states of the Federation. The TOR 2 however require the consultant to conduct a survey to cover the main producing units for each energy type

to determine the representative unit cost of production for each sector of the country's inter-sectoral classification and by primary factors.

Conclusion

No doubt the consultant has done a good job. He has a firm grasp of the related issues in the energy sector. The analysis carried out was also rigorous. However our fear is that he did not conform fully to the TOR but have chosen to treat them in the manner convenient to him.

Review of Final Report

TOR 1

The TOR require the consultant to review the past evolution of the energy and hydrocarbon sector from a base year between 1955 and 1960 in addition to providing information on most recent estimates of reserves, non-renewable energy sources, the cost structure of the sector and comparison with 2 representative countries- one from Africa and another from the industrialised economy.

1) The report is quite detailed in its review of the historical trends of the energy sector. Very useful sets of data are also presented in the report. However, contrary to the terms of reference which require then to choose a base year for the review from between 1950 and 1960, most of the data present (especially on oil) started from 1970 and some of them end in 1987. In addition, the sources of information for some of the tables were not indicated for example Tables 7.1 to 7.6, while more explanation is required for the notes to Table 3.5.

2) While the consultant gave a good breakdown of investment requirements for their projections, he did not indicate as required by TOR 1, the planned and actual government expenditure, by type of energy, within each past plan period and the ratio of commitment to total government plan commitment and as proportions committed to each type.

TOR 2

The consultant was required to conduct a survey with the assistance of FOS, covering the main producing units for each type of energy as to determine the representative unit cost of production by sector and primary factors. This cost breakdown is to be performed separately for each type of energy including solar and moon.

Comments

The consultant carried out a nationwide households energy survey to collect data on structure of household energy consumption. A similar survey was carried out for transportation but to our knowledge the industrial survey was missing in analysis.

An energy balance was also constructed for 1989. The sectoral classification however seems too aggregative. For instance, an industrial energy survey would have assisted to subdivide this important sector into energy intensive and energy extensive categories.

TOR 3

The consultant was required to perform a summary break even cost analysis, to determine the effects of product and input prices and fixed cost on the profitability of a representative enterprises in the various energy sector taking into cognizance scale of operation. In addition, the appropriate prices for the energy producers were to be proposed. The cost element arrived at were to be compared with similar cost elements in caparable enterprises in other countries.

Comment

Most of the issues required in this term of reference were not addressed by the consultant.

TOR 4

The TOR expects the consultant to identify the factors -qualitative and institutional that influence the energy sector, to project both the supply and demand for energy for the next 20 years and to perform a number of scenarios with the model constructed for making demand and supply projection.

Comments

The consultant developed 2 separate models for demand and supply projections. A demand driven macro-economic model without disequilibrium analysis was used to project energy demand while an optimization model was used for supply analysis.

While these models could be very relevant in the period of regulation of the economy, it is hard to see their justification under the present deregulation regime. The models focussed more on engineering processes rather than economic factors, thus the impact or changes in relative prices, or energy products, financial and trade liberalization, and consideration for substitution possibilities in energy use cannot be effectively captured by the models.

The models have serious limitation for analyzing the integration between the energy sector and the rest of the economy. The impacts of energy policy on government balances, the external balances, cannot be simulated in such models. The influence of new energy sources such as temperature, solar and nuclear energy were not adequately treated by the consultant.

TOR 5

The consultant was expected to outline the appropriate government policies and programme which would enhance the performance of the sectors, indicating the approximate public investment required to achieve this.

Comments

This aspect of the project was well treated by the consultant. Investment requirements for energy projections from the optimization model were presented for the energy sector. These were done for each of the two scenarios, high and low.

TOR 6

The TOR 6 required the consultant to perform a number of tasks such as energy policies evaluation, locational analysis of energy production and consumption patterns, technological options of an optimal energy mix, energy pricing and investment, energy exports and imports and the institutional/organisational framework for the improvement of power supply and distribution.

Comments

The consultant dealt extensively with the evaluation of the planning methodologies and environment in Nigeria. A number of policy issues relevant for the sector were also extensively dealt with. However, some issues were either left out entirely or treated superficially in the reports. TOR 6 d, e, and f belong to this category. The impact of technological options on relative costs and development and energy trade especially with other African countries deserve more extensive treatment.

Overall Comments

The consultant no doubt has done extensive and rigorous work in these 4 volumes of report they submitted. They displayed a firm grasp and understanding of the issues involved. However, our fear is that he did not conform fully to the TOR but chose to treat them in the manner convenient to him.

SECTOR: Fisheries

CONSULTANT: FISESCO Limited

**REVIEWERS: Saa Dittoh
Bayo Aromolaran**

Review of Interim Report

I. General Comments:

The report contains an excellent review of past performance of the fisheries sub-sector in the economy. The detailed review of the stage by stage evolution of the industry is particularly commendable. There is abundant evidence in the report to show that a lot work has been done which has yielded quite good results.

II. Conformity with Given Terms of Reference:

The work done so far as documented in the interim report shows considerable effort at covering what was envisaged in the given Terms of Reference (TOR 1 and 2). Data on prices are however conspicuously absent from the information presented. This is a serious omission which hopefully would be corrected in the final draft report.

III. Amount and Suitability of Statistical Data:

1. Quite a considerable amount of data has been presented and properly analysed. The state by state presentation of detailed data on output and annual growth rates, investment allocations and disbursements, and input distribution (in vol. II) in particular is very commendable. As mentioned earlier however, there is need to provide price data.

2. As pointed out by the consultant on page 2 (vol.I), nominal GDP growth rates give wrong impression of growth in the sector especially in an inflation prone economy. There is the need to compute real GDP growth rates. The fact that real cost of living indices are given in different base years does not imply that real GDP computations cannot be undertaken. Simple statistical methods can be usefully employed in this regard.

3. Several tables (in vol. I) have ambiguous titles and headings and units of measurements have not been indicated in many thus making the interpretation of the tables difficult.

Fore example In Table 1.1 the headings should be as follows

Year	Total GDP Growth Rates	Fishery GDP Growth Rates
------	------------------------	--------------------------

Also there is need to indicate units of gross output and GDP in Tables 1.2, 1.3 and other tables.

- (4) Tables 1.1, 1.3 and 1.4 (vol. I) can be merged into a single table to give a more vivid picture of the situation.
- (5) Table 1.5 (p.13 of vol. I) compared Nigerian data with countries which have little in common with Nigeria with respect to fisheries. Comparison with West African or other African countries would have been more useful.
- (6) There is need to reconcile information in Tables 1.2 (p. 5), 3.6 (p. 43) and 4.3 (p. 58). In Table 1.2 fishery sector gross output is given while total output is given in table 3.6. What is the difference between the two categorisations? In 1985 gross output was 1,079.5 (no units given), (Table 1.2 pg. 5), total domestic output was 227,525 (also no units given) Table 3.6 p. 43) while domestic production was 250,400 tonnes (table 4.3 p. 58). Which is the correct figure for fish output in 1985?
- (7) It is probably more appropriate to present Figures 1 to 19 (pp. 14 - 32 of vol. II) in an appendix. The rest of the presentation of statistical data (in volume II) is quite appropriate.

IV. Amount and Suitability of Non-Statistical Information:

The non-statistical information provided are quite relevant. A lot of useful information about the fishery sector in each state such as major fishing areas, type of fishery done in the areas, important landing sites and others, were presented and well discussed.

V. Promise of Further Work Envisaged

The fishery sector interim report is definitely impressive. It is hoped that the productive units survey will also be undertaken with the same seriousness that has been exhibited in the interim report.

No indication was given in the interim report concerning what progress has been made thus far in the implementation of the survey. There is also no indication of the methodology of analysis to be employed. In addition, it would have been useful to attach the questionnaire. It may be necessary for the consultant to send us the field survey methodology and questionnaire as we may be able to offer some suggestions that may prove helpful in carrying out any necessary modifications.

VI. Overall Evaluation

It is well written report. Areas to be rectified have been discussed above. We recommend its acceptance.

Review of Draft Final Report

I. General Comment:

The consultant did not follow the format of interim, draft final and final reports. The reports submitted for review are the "Survey Report" and "Projections" which address only TOR 3 and 4. The previous ones (already reviewed) were "National Review" (volume 1) and "State Reviews" (volume 2) and they addressed TOR 1 and 2.

II. Scope and Work Content Envisaged:

The study was to cover the main types of Fisheries namely:

- (i) Artisanal (maritime and riverine)
- (ii) Industrial
- (iii) Aquaculture.

What was Implemented and Suggestions for Further Work:

The various types of fisheries were adequately covered by the survey.

III. Detailed Terms of Reference:

TOR 3: As in the given terms of reference: "Conduct... variables"

Expected Implementation:

It was expected that a comprehensive field survey would be carried out in all the major fishing states of the Federation and unit costs of production computed. Also break even cost analysis was to be carried out for each fishery type. Comparison was also expected to be made with what obtains in other African Countries.

What was Implemented and Suggestions for Further Work:

The consultant did undertake field survey work covering 10 major maritime and inland fish producing states. Costs of production were also computed for each fishery type. However while considerable attention was paid to variable costs (chapter 4, pages 74 - 91) very little was said about fixed costs. One cannot ignore the great influence of investment costs in long run phenomena. Chapter 4 has to be rewritten and fixed costs estimated and discussed for each of the fishery types.

The break-even analysis computation attempted in Appendices I and II (pages 108 and 109) do not appear to be correct. Break even point refers to the level of output at which total costs exactly equal total sales value. Cost levels were not compared with what obtains in any other country. This might have been due to some difficulties the consultant faced in implementation which need to be stated.

TOR 4: As contained in the given terms of reference: "Based on... preceding".

The consultant did not cover TOR 4(a). TOR 4(a) requires a 20-year forecast of fish production assuming current conditions remain the same.

Demand and supply projections were done, based on two alternative scenario. This is highly commendable, but one expected that more scenario should have been considered. The equation used for the demand projections does not seem satisfactory. The assumption of unitary income elasticity of demand is definitely not realistic. With consumption and GDP figures, income elasticity of demand can be easily obtained. Why would it be impossible for the elasticity of demand for fish to be negative or positive? It is incorrect to reject an estimated demand function simply because of wrong signs. The income elasticity of fish demand is expected to be positive only at relatively low income levels. At high income levels it is in fact expected to be negative, ceteris paribus. The need to compute a more acceptable income elasticity of demand becomes even more urgent given the fact that the population elasticity is dependent on it.

The consultant produced national balance sheets based on the two scenario assumed and the equation adopted. If the equation is modified, as it should, the calculations would need to be redone.

TOR 5 and 6 As contained in the given terms of reference:

- (i) "Suggest... of Part 3"
- (ii) Analyse... involved".

These TOR are yet to be covered.

IV. Overall Evaluation and Recommendation:

The consultant has done some considerable amount of work, especially with regard to the survey. The omission of detailed discussions of fixed costs is however a major drawback which needs to be rectified. The computations done for break-even analysis is also incorrect. The assumptions made with regard to the demand equation needs to reassessed. Also TOR 4 (a), 5 and 6 are yet to be covered.

There is definitely considerable work left to be done. Also there will be a need to summarise the four volumes already produced by the consultant into one Final Report.

Review of Final Report

I. General Comment: The consultant has done some good work especially with regards to the reviews but he does not seem to have paid much attention to our reviews of the reports. This we believe must be done.

II. Scope and Work Content Envisaged.

- (a). The study was to cover the main types of fisheries namely;
- (i) Artisinal (marine and riverine)
 - (ii) Industrial
 - (iii) Aquaculture

What was Implemented

All the types of fisheries were covered in study . The consultant also claimed fish canning establishments were studied (page 2 of volume II, part I) but there is no evidence in the report to that effect.

(b). The study was meant to;

- (i) review the part performance of fish and sea food production from about 1955 to about 1988.
- (ii) conduct a survey to determine the cost of production in the different types of fisheries and perform

break even analyses.

(iii) compare cost levels with production costs in other Africa countries.

(iv) prepare 20 -year forecasts of fish production and demand and draw alternative 20 -year balance sheets.

(v) suggest innovations, as well as policies and programmes to bring about improvements in fish production.

What was Implemented and Suggestion for Further Work.

The review of past performance of the sector at the National and State levels has been excellent. It is however unfortunate that the consultant refused to take cognisance of suggestions in our review of the interim (first) report that real GDP growth rates should be computed. Tables 1.2, 1.3 and 1.4 have to reflect real values. Nominal values misrepresent the real situations. Infact real GDP was used in making projections as indicated in volume II part II page 20 so what is the problem in reporting real values.

A good survey was conducted but again the consultant disregarded our comments of the draft final (second) report and has done nothing about the issues of fixed costs and the correct method of undertaking break even analysis. (see below for elaboration on these points).

Some projections and balance sheets have been presented but no suggestions have been made on policies and programmes to improve the fisheries sector. The consultant is infact yet to tackle TOR 5 and 6.

III. Detailed Terms of Reference

TOR 1 and 2: As in the given terms of reference.

"Review the Past ... the Survey".

"Review in more Detail ... Policy".

Expected Implementation

A thorough review of the past performance of the fisheries sub-sector of the Nigeria economy about 1955 to about 1988.

What was Implemented and Suggestion for Further Work

As stated earlier, the review has been excellently done. The points made earlier should be implemented. The whole report can also be made much better by extra editorial work.

TOR 3:As in the given terms of reference.

"Conduct a survey ... these Variables".

Expected Implementation

It was expected that a comprehensive field survey would be carried out in all the major fishing states of the Federation and unit costs of production computed. Also break even analysis was to be carried out for each fishery type. Comparison was also expected to be made with what obtains in other African countries.

What was Implemented and Suggestion for Further Work

The consultant undertook field survey work covering 10 major maritime and inland fish producing States and obtained quite useful information.

The problem as stated earlier is that he ignored our earlier suggestions. Until adequate attention is paid to fixed costs items it is impossible to obtain any acceptable break even output or sales. In any case the report itself stresses the importance of fixed cost items in industrial fisheries and aquaculture in particular but why those items were not listed and costs given is what we cannot understand. As stated in our review of the draft final (second) report, "chapter 4 has to be rewritten and fixed costs estimated and discussed for each of the fishery types". We are emphasizing this point because it is very vital for relevant conclusions to be drawn. The consultant says, for example, on page 78 (volume II, part I) that "industrial fishery appears to be the most profitable of the three types of fisheries followed by artisinal whereas fish farming is the least profitable". This conclusion CANNOT be arrived at by doing gross margin analysis. Also on page 79(volume II part I), the consultant said "a fishing trawler of an average size which used to sell between ₦2 million in 1985 is currently selling for ₦7 million to ₦10 million" but in Table 5.6 (page 120 of volume II, part I) the fixed costs of medium and large scale trawlers is given as ₦2086,263 and ₦2,930,768 respectively. This is definitely contradictory. All these need to be straighten out and the best way is to itemise all fixed costs items for each fishery type with their corresponding costs and add up. This will also afford calculation of the break even output and/ or sales levels.

The very unorthodox break even equations (?) given in Appendix I, (page 124 of volume II, part I) are not acceptable because they do not mean anything. Simply put, an equation is a relationship between variables. What is presented in Appendix I are definitely not equations and infact are meaningless.

No break even analysis was attempted for aquaculture and one would have thought that, that analysis is more relevant for aquaculture.

The consultant attempted some international cost comparisons but how those indices were obtained is very unclear. Were the indices obtained using common currency equivalents? The TOR specifically

mentioned African countries for very good reasons. Why did the consultant prefer Denmark and India and the rest without including even one African country?

TOR 4: As in the given terms of reference.

"Based on ... the Preceding".

Expected Implementation

It was expected that the consultant would prepare 20 -year forecasts of fish production and domestic and export demand and also draw up alternative 20 -year balance sheets.

What was Implemented

Projections (forecasts) were done using two scenarios. They were also done with an assumption that "the demand function is characterised by unitary income elasticity".

The consultant as usual ignored our earlier comments on the above. We will simply repeat what we said in our earlier review. We commend the use of more than one scenario in projections. We further believe that there should be more than two scenarios. On the elasticity of unity, we cannot regard such an assumption as reasonable. The consultant has presented consumption, price and GDP figures for many years and can conveniently compute income and even price elasticities of demand for fish.

TOR 5 and 6: As in the given term of reference.

(i) "Suggest, if Relevant, ... of Part 3"

(ii) "Analyse ... Expenditures Involved".

Expected Implementation

It was expected that the consultant would suggest some new approaches and specific policies or programmes with appropriate expenditure profiles to help improve the fisheries sub-sector of the economy.

What was Implemented and Suggestion for Further Work

These TOR are yet to be covered. The consultant should endeavour to address these TOR.

IV. Overall Evaluation and Recommendation

It is quite obvious that there has been negligible progress since the draft final (second) report. There is very little difference between the final report and the earlier reports which were extensively commented upon.

This report cannot be accepted until our earlier two reviews and this one are considered by the consultant. We are ready to discuss all issues raised with the consultant any day any time.

SECTOR: Food Crops.

CONSULTANT: BEC Associates International Ltd.

**REVIEWERS: Saa Dittoh
Bayo Aromolaran**

Review of Interim Report.

I. General Comment.

The interim report of the sectoral study on food crops shows evidence of thoroughness. The report quite unlike a number of other sectoral reports contains a good deal of analysis of trends of key economic indicators, especially those relevant to the sector. The methodology is also well stated and we (in CEAR) particularly agree with the need to adjust FOS, CBN, FAO etc. data based on available experimental knowledge. The adjustments done by the consultant however seem to have some lapses and we may need to discuss these with the consultant. Adjustment for "urban" agriculture was for example not done.

The consultant should also be commended for the clear and exhaustive treatment of the merits and demerits of data from the various sources.

II. Conformity With Terms of Reference

(1) The work done and presented in the interim report conforms to a large degree with the Terms of Reference (TOR). We however wish to point out a few problem areas that need clarification and resolution.

(i) On page 7 (of the Interim Report), TOR 3, there is an omission (possibly by the typist). The TOR should read "To conduct a national crop survey using medium sized samples of productive units, stratified by States of the Federation and by main crops and providing proportional coverage to small and medium size units on one hand and large productive units on the hand to:

(a) determine....."

The underlined portion has been omitted in the TOR stated (in the interim report). Also omitted in TOR 3(a) is the indication that the representative unit cost of production is to be done according to the country's inter-sectoral classification. This means the breakdown should not only conform to ecological zones and to crop categories but also conform to the way resources, for example, have been classified. Labour, which is the most important input in the foodcrop sub-sector, for example, has been classified into six as indicated in the CEAR document distributed during the Lagos meeting of May 1990 (see page 6 of that document). Though further disaggregation is acceptable, aggregation of the classes specified should not be done.

(ii) Again, with respect to this same TOR (3a), the consultant is expected to aggregate the information to produce separate input coefficients for small/medium and for large production units. The consultant on page 7 page 11 (section 1.6) interprets that to mean producing separate input coefficients for each of small, medium and large production units. Even though that interpretation should result in more detailed analysis, I think it

is better to conform to the TOR and consider small and medium production units together because the difference between small and medium production units is very blurred. Also there is need for uniformity with what is being done in other sectoral studies.

(2) As discussed and agreed upon at the Lagos meeting, the foodcrop sectoral study consultant should consider some other crops not covered in the interim report. These include wheat, acha, groundnut, soyabean, melon, benniseed, sweet and Irish potatoes and vegetables, fruits and sugarcane. Historical review of these may not be possible but the survey should consider them.

It was also agreed in Lagos and as mentioned in the interim report, the non-food annual crops, namely, cotton, kenaf and tobacco should be studied by the foodcrop sector study consultant.

(3) No indication has been given in the interim report as to what the consultant will regard as small/medium and large production units. We hope the consultant agrees with us that 0.1 and 9.99 hectares constitute small/medium production unit while 10 hectares and above constitute large production units. Note that this categorisation is on the basis of crop/crop mixtures and NOT total household holdings.

III. Amount and Suitability of Statistical Data

(1) A considerable quantity of statistical data have been presented and analysed. In fact data relating to almost all the key variables i.e. production, prices imports, exports and others have been presented. The only major variable for which data have not been presented is unemployment but that can not be expected from them. The unemployment problem in agriculture is definitely knotty.

(2) A few statement relating to the data presented need some clarification:

(i) The last statement on page 18 states the fact that, "the common farming practice in Nigeria is inter-cropping whereas FOS estimates most often assume sole cropping". We would want to know what hecterages and yields are being presented in the tables. Are they sole crop hecterages and yields or mixed cropping hecterages and yields? if the consultant did some adjustments in this respect how were they (the adjustment) done?

(3)Quantities and values of inputs imported have been presented (Tables 3.7 and 3.8 on pages 66 and 67).It would be also useful if some information can be obtained on quantities actually used (or sold to farmers) over the years. We believed that can be compiled from the states. A state by state compilation of such information will give indication of the efficacy or otherwise of the inputs in various areas.

(4) The questionnaire(s) drawn for the survey has (have) not been attached. It would be good to have copies of the questionnaires to comment on.

IV. Amount and Suitability of Non-Statistical Data

Most of the non-statistical information presented seems clear, accurate and informative. There are however a few inadequacies which need to be pointed out. Also some suggestions are being made for the restructuring of some sections of the write-up.

(1) on page two, the last two statements are not very correct. It is true that all the states have state-wide ADPs, but it is not true that all functions relating to extensions and input supply services have been taken over from the states Ministries of agriculture. Ondo state for example has a Ministry of Agricultural Extension Services which is separate from the ADP and which has extension staff in the field.

Also, the statement that the ADP system has contributed to increasing the food supply and the income of Nigerians in the rural areas in the recent times is contestable. Some ADP such as the Ekiti-Akoko and Ilorin have been disasters.

(2) The discussion in chapter two seems to be too fragmented and repetitive. Sections 3.2 and 3.3 can for example be merged such that both hecterage changes and growth rates for each crop can be discussed together.

(3) On page 36 the following statement is made "... individual family foodcrop production is declining and so aggregate production by direct labour is equally falling". Also on pages 37-38, the impression is created that the number of tractors in use declined since the early 1980s. How then did hecterages continue to increase over the years as reported in tables 3.2 and 3.3? How have farmers been able to cope with Nigeria's food demand when the population growth rate is at least 2.5 % per annum?. I hope the field survey will reveal the erroneous impression that individual family food crop production is declining.

(4) The supply side technical problems discussed in sector 6.2 (PP.144-145) are not exhaustive. Only food crop production problems have been discussed. Foodcrop marketing problems also affect supply.

(5) On page 151, (last but one paragraph), there is the claim that the NAFPP and OFN did not do much to improve the food situation in the 1970s and the evidence given is the high level of imports. On page two however, the consultant claimed that the ADP system has contributed to increase in food supply when food imports stood at their highest in the 1980s. There does not seem to be any objectivity in the assessment of the different programmes. More evidences should be provided to back these statements.

V. Promise of Further Work Envisaged.

From the good work already done, we believe the survey will be done in accordance with the TOR and diligently as stated in section 1.6 (p.11). It is also expected that methods and mathematical models used for analysis of data and in making projections will be clearly discussed and defended.

VI. Overall Evaluation.

This is a very good report. Areas that need to be rectified have been pointed out.

Review of Draft Final Report.

I. Scope and Work Content Envisaged

(a) The study was to cover all the main food crops grown in the country. These include cereals (maize, sorghum, millet and rice and possibly wheat); roots and tubers (cassava, yam and cocoyam); grain legumes (groundnut, cowpeas and soybeans), vegetables and others.

What was Implemented

All these were covered in the survey.

(b) The study, like others was meant to basically:

(i) Review the past performance of the food crop subsector;

(ii) Conduct a survey to determine representative unit costs of production of various crops;

(iii) make a 20-year forecasts of food crops production, domestic and export demands for various food crops and draw up 20-year balance sheets; and

(iv) suggest innovations, as well as policies and programmes to bring about such innovations.

What was implemented

(i) A very comprehensive review of the food crop subsector was undertaken. The consultant is particularly commended for the clear and exhaustive treatment of the merits and demerits of data from various sources and for highlighting the problems inherent in the use of secondary data.

(ii) There is considerable evidence of a well executed field survey in which all the agro-ecological areas have been covered. Excellent analysis of data have been carried out, 20-year forecasts have also been made and some suggestions made. (See below for areas that attention should be paid to in the production of the final report).

II. Detailed Terms of Reference

TOR (1 and 2)

TOR 1: Review the past performance....."

TOR 2: "Review annually in more detail....."

Expected Implementation

A detailed review of existing literature, which includes Federal and State Governments policy statements, development plans and budgets as well as annual reports of organizations and institutions and research works.

What was Implemented and Suggestions for Further Work

As stated earlier, the literature review is very comprehensive and very informative. Some comments made with regards to Volume I (the interim report) do not however seem to have yet been taken into consideration in producing the draft final report. A major point was raised concerning the need to clarify whether it is sole crop or intercropped hecтарages and yields that have been presented in the tables (please refer to those earlier comments). The question is relevant with respect to Table 2.2 of Vol. III. We have to be very clear of what is being projected. The statement (on page 2 of Vol. III) that the area, yield and total output adjustments were "based on various known agronomic, agro-climatological, policy and other factors" does not throw enough light on this problem of sole crop versus intercrop area, yield and output.

TOR 3:

"Conduct a national crop survey using medium-sized samples...."

Expected Implementation

- (1) A good stratified random sample survey of crop production in the various ecological zones of the country taking into consideration the diversity of production systems even within the same ecological zones.
- (2) A summary break-even cost analysis for each major crop.
- (3) An analysis of the comparative performance of public versus private production units.
- (4) Comparison of cost levels with African and relevant non-African countries.
- (5) Assessment of national crop output levels and rate of employment or unemployment in the crop subsector.

What was Implemented and Suggestions for Further Work

(1) The survey was well executed. All the agro-ecological zones of the country were covered and considerable data was obtained. A sample questionnaire is however not included in the appendix of any of the volumes even though it is claimed it had been included on page 3 of volume II.

(2) Excellent analyses of data have been done. The financial and economic profitability, breakeven and domestic resource cost analyses have been undertaken with some expertise and is praiseworthy. Even though no direct assessment has been made with respect to the performance of public as opposed to private production units in the food subsector (TOR 3c), the breakeven analysis done according to production technologies is an acceptable substitute. There are infact no public crop farms worth considering currently. The consultant must be commended for the very good and innovative analysis along different food crop production technologies. It is also noteworthy that a number of unclear areas in volume II have been improved upon in the summary report (The Main Report).

TOR 3d has been taken care of by the very good domestic resource cost analysis. The analysis does indeed indicate the likelihood of continued importation or the possibility of exporting food crops under current conditions.

There are however areas that still need some clarification and possibly some further work. They are the following:

- (a) What is meant by rural farm sizes as stated in Table 1.1 (page 7) and pages 10, 15 and 16 of volume II? Do we have urban farm sizes?
- (b) What is meant by modern farm holdings as stated in Table 1.2 (page 7) of volume II? Are those to be distinguished from rural farm holdings? If so, how can that be done?
- (c) Why are medium, mean and range used for rural farm sizes (Table 1.1. of volume II) while percent distribution of farm sizes is used for modern farm holdings (Table 1.2 of volume II)?

(d) There is a mix up of terms with respect to Tables 1.2 and 1.3 (of volume II). While in Table 1.2, the consultant talks of modern farm holdings, it is large-scale enterprises in Table 1.3. Do these terms mean the same or different things?.

(e) It is maiwa (the late maturing and drought resistant millet variety) which is rather more widely cultivated (check page 23 of volume II) Also "Odongbo" is probably the most popular local high yielding variety in Yoruba land especially in Oyo state (check page 27 of volume II).

(f) Most vegetables are actually grown in mixtures under irrigation (check page 41 of volume II). Also has there been any example of a successful alley cropping practice in the country? (Check page 42 of volume II).

(g) Over 80% of irrigated land is under small surface irrigation (informal), yet the consultant studied only the formal irrigation systems. There is a need to consider informal irrigation. (Check page 42 of volume II).

(h) In almost all the farm budgets (as given in the appendices) family labour use is indicated to be nil. So also are female and child hired labour. All the farm work is shown to be done by hired males. That is definitely not correct. We suspect some computer programming mistakes.

(i) Why did the style in presenting the farm budgets change for appendix D. We believe the sub-totalling into family, male hired, female hired and child hired labour as in the other tables (appendices) is necessary for all the farm budgets.

(j) Under capital recovery (in the farm budgets) what is "land clearing labour and why is that regarded as a fixed (investment) cost? Why is its expected life 100 years?

(k) Why is "working capital" added to all the farm budgets? What is that suppose to finance? And why the addition of both 3-month and 6-month working capital? Even if there is need for it, it should be either the 3-month or the 6-month but not both.

(l) There is no Table 3.27 in either the reports on the appendices as being claimed on page 69 (last sentences) of volume II.

TOR 4, 5, and 6

TOR 4 "Based on the preceding....."

TOR 5: "Suggest, where relevant, new products....."

TOR 6: "Analyze the likely market patterns....."

Expected Implementation

(1) Preparation of 20 - year forecasts of food crop production, domestic and export demand for various crops and alternative 20-year balance sheets for the products.

(2) Suggest new products that would be beneficial to Nigeria and support the suggestion with quantitative information.

(3) Analyze likely market patterns during the 20-year period and suggest specific new government policies or programmes, changes in government administrative policies and appropriate public investment and recurrent expenditures that will be involved.

What has been Implemented and Suggestions for Further Work

TOR 4, 5 and 6 have been covered quite adequately in volume III. One is however worried about the high yield growth rates assumed (Table 2.1 of volume III). Our suspicion is that the potential yields (the highest possible yields) assumed are overestimated. We think that instead of depending solely on the equation on page 9 (of volume III) to calculate growth rates of yields, the consultant should have also considered historical trends. Most ADP completion reports indicate no significant changes in yields over the years. Expected yields rather than potential yields should have been used in determining growth rates.

The assumptions concerning hectarages (pages 11 and 12 of volume III) are however quite realistic.

The conclusions reached with respect to wheat cultivation (page 90 of volume III) is very instructive and very important for perspective planning given the very political nature of wheat production. It is indeed wishful thinking to expect a yield of 4,000 kg of wheat per hectare.

III. Overall Evaluation and Recommendation

The food crop sector study is probably one of the best in terms of intellectual input, geographical coverage, product coverage, and recommendations. We commend the consultants very highly. Our advise however, is that all the four volumes should be revised taking into consideration the comments made here and those that were made earlier (with respect to volume I). The final report will then be the revised versions of all the four volumes. The consultants should probably call on CEAR for discussions on various points raised before submitting the final report.

We recommend that the consultants be paid the next instalment.

Review of Final Report

I. Scope and Work Content Envisaged

(a) The study was to cover the main food crops grown in the country, namely: cereals- rice, maize, sorghum and millet; Roots and Tubers- cassava, yam and cocoyam; Grain Legumes- Cowpea, groundnuts and soyabeans; Vegetables- tomatoes.

What was Implemented:

All these crops were covered in the study.

- (b) The study was to:
- (i) review the past performance of the food crops sub-sector;
 - (ii) conduct a survey;
 - (iii) make 20-year forecast of foodcrops production; and
 - (iv) suggest innovations.

What was Implemented

A comprehensive review was undertaken and as stated in our past comments, the consultant's discussion of the merits and demerits of the various data sources is very commendable..

The field survey was well executed as evident from the results obtained. Excellent analyses of data have been done, 20-year forecasts have been made and some suggestion given.

III Detailed Terms of Reference

TOR 1 & 2:

- (1) "Review the past performance ... data are available",
- (2) "Review annually ... stabilization policy".

Expected Implementation

A detailed review of existing literature to include Federal and State Government policy statements, development of organisations and institutions and research works.

What was Implemented

As stated above, the literature review has been comprehensive and informative.

TOR 3: "To conduct a national crop survey ... these variables".

Expected Implementation

- (i) A good stratified sample survey.
- (ii) A summary breakeven cost analysis.
- (iii) An analysis of the comparative costs of public versus private production units.
- (iv) Comparison of cost levels with some African and other countries.
- (v) Assessment of crop output levels, employment etc.

What was Implemented

(i) The survey was well executed. All the agroecological zones of the country were covered. A sample questionnaire has however still not been included in the report. We believe it is important that the consultant supplies the sample questionnaire.

(ii) Excellent analysis of data have been done. Financial and economic profitability as well as breakeven and domestic resource cost analysis have been undertaken.

TOR 4, 5, & 6:

- (i) "Based on ... in question"
- (ii) "Suggest ... objective 3"
- (iii) "Analyse the likely ... expenditures involved".

Expected Implementation:

(i) Preparation 20-year forecasts of crop production, domestic and export demand for various crops and alternative 20-year balance sheets for the products.

(iii) Analyse likely market patterns and suggest specific policies or programmes.

What was Implemented

These terms of reference were well executed even though we are still uncomfortable with the high yield growth rates used (see section III page 17 Table 2.3). The assumptions with regards to the present and projected population of the country also give cause for concern in the light of the recent population figures released by the National Population Commission. We do realise however that the use of the new population figures will imply reworking all the projected estimates.

III. Overall Evaluation and Recommendation

There is no doubt that the Food Crops Sectoral Study is one of the best. There is a wealth of information in the report as a result of diligent literature search and field work. The consultant deserves high commendation.

We recommend that the consultant be paid his final entitlement but only after a copy of the sample questionnaire (questionnaires) is (are) deposited with the Planning Commission.

SECTOR: Domestic and Foreign Trade and Capital flows

CONSULTANT: Coopers & Lybrand Associates, Lagos

**REVIEWERS: Sam Olofin
Afelkhna Jerome
Mufu Raheem**

Review of Final Report

I. Scope and Work Content Envisaged

The study was to focus on:

- * Domestic Trade
- * External Trade and
- * Capital Flows

Being a higher economic activity, trade transaction has two dimensions: domestic and external. These two dimensions exhibit different structure, coverage, nature and orientation. There has been a need to have a thorough understanding of not only the processes and flows of these two trade types but also of the factors influencing their assured trends as well as their impact on and contribution to the performance of the domestic economy. It is also important to understand how one trade type affects the other.

It is not only the exchange of goods and services that is important in trade analysis, the analysis of the financial flow that complement this exchange is equally important. This movement of capital, whether short, medium or long term, within a country or among different countries of the world becomes one of the issues to be examined.

For the study to be meaningful in terms of contributing sufficiently to the National Perspective Plan for Nigeria, it is expected to review past studies and develop a consistent analytical framework with which econometric analysis and projections can be carried out. In carrying out this assignment, both published and unpublished data are to be utilised.

II. Detailed Terms of Reference

Discussion on the expected implementation and what was implemented and suggestions for further work are examined below.

Expected Implementation:

As stated in the Review of Draft Final Report.

What was Implemented and Suggestions for Further Work

Flow of funds technique was employed by the consultant on analysing the domestic capital flows. Heavy reliance was placed on the Central Bank of Nigeria as an information source. The coverage period spans 1970 through 1987. The analysis of the performance of domestic capital flows was carried out by highlighting and discussing the key variable of interest. The study also examined intersectoral financing structure from 1970-1987. Reference was made to past studies.

The analysis of the flow-of-funds structure is not detailed enough. The consultant may have to highlight factors that influence the existing trend as it were. One question that may also be raised is why the analysis was not done to cover a longer period.

On domestic trade flows, a survey of flows was carried out in 1990 with a view to coming up with comparable statistics. The methodology as well as the structure of the survey have been well explained. Data problems are emphasised and a survey of past studies has been carried out. The approach used assumed that about 90 percent of values of trade flows is accounted for by the model. The scope of the survey should have been broadened to consider air cargo traffic.

The foreign trade component is well analysed. The consultant has a fairly good review of the performance of the external trade and the profile of official policies as they affect the performance of external trade. The study also attempted to review foreign investment policies in Nigeria but the discussion was not detailed enough.

A Standard International Trade Classification approach should have been used in decomposing and discussing the trade in exports and imports. Some basic indicators in the balance of payments were not mentioned nor discussed. They include overall balance in the balance of payments and basic balance in the balance of payments. Discussion on the marketing boards is very scanty and not detailed. The use of non-tariff barriers was not well studied. The Lome Convention arrangement, as important as it is, was not mentioned. In analysing the growth and pattern of foreign private investment flows, the foreign direct investment has not been decomposed into its constituent parts. As regards external loans, it is better to use the dollar value of the debt as apposed to the naira value in the analysis. The repayment profile was also not discussed.

Section IV of the report focusses on energy and mineral resources. The first section discusses the emergence and evolution of OPEC. The Nigeria oil industry was also reviewed. For some of the tables presented the sources of information were not indicated.

It is very important for the consultant to revisit the section on domestic cost of production and international comparisons. It seems that the analysis here is not thorough enough. Instead of relying on BEC's estimates, the study could come up with its own more reliable estimates in some (very few) selected levels of production. This section needs to be redone carefully. The indicators of interest here, i.e. effective rate of protection and domestic resource cost should be carefully computed given their importance as indicators of comparative advantage.

Section V presents the study's econometric analysis and projections. The study is silent on the theoretical underpinning which informed the analytical framework presented. Even though some equations are highlighted, there is no discussion on how the implied relationships came about. The report did not provide much informaton as to the sample size and the estimation technique used. Some key variables have also not been included in the model. They include repayment of loans from private and official sources, the loan terms and balance on the current economy.

SECTOR: Health, Nutrition, Water and Sanitation.

CONSULTANT: African Health Consultancy Services [AHCS]

**REVIEWERS: Charles Iwunor
Thompson Adeboyejo
Afeikheme Jerome**

Review of Draft Final Report

Scope and Content Envisaged

According to the terms of reference, the study was intended to accomplish the following tasks:

1. Evaluate existing information on the three sub-sectors from 1955 to the present.
2. Review the basic links between health, water, sanitation and housing.
3. Critically review and calculate various indices for measuring nutrition, access to potable water supply and sanitation facilities, health, housing and compare them to WHO recommendations.
4. Conduct two surveys, with the assistance of the Federal Office of Statistics and the Ministry of Health, stratified by states of the federation, to determine relevant indicators for the various sub-sectors.
5. Calculate the number of nutrition reference measures, which correspond to unit outputs of each of the food crop, livestock and fisheries.
6. Review current problems in health care delivery, distinguishing among those pertaining to infrastructure, medical personnel and supplies of medicine, and their distribution and cost, and distinguishing between those provided by the public sector and by the private sector.
7. Based on the experience of other countries, suggest if appropriate, new approaches to curative and preventive health care, and supply of medicine, with attention to the use of crops of paramedics, as in China, and to areas in which traditional non-western medical practices have shown to be effective; and
8. Suggest policy measures and institutional changes which would facilitate the implementation of alternative plans for health care.

Contents of the Report.

After an introductory chapter, in which the role and importance of traditional medicine in Nigeria is emphasized, follow a chapter on nutrition. Chapter three undertakes a historical review of the development of the health sector since 1960 while chapter four examines Water supply, Sanitation and Housing conditions. Chapter five presents a report on the results of the AHCS housing survey. The topic of chapter six is problems of health care delivery while chapter seven presents alternative approaches to curative and preventive health care in Nigeria. Chapter eight, the concluding chapter, adopts an eclectic approach to examining several issues on nutrition and health with emphasis on the need for nutritional surveillance.

General Remarks

The report did cover the three broad areas recommended for study, with the health sector being most comprehensive in terms of the demands of the terms of reference. There is hardly any literature except Olayide, S.O. et. al. (1972) and Oluwassanmi (1972) that were copiously copied.

The specific comments are as follows:

1. The linkages between the three sub-sectors is not clearly discernable from the report. In spite of the fact that TOR2 requested the consultant to review the various links between health, water, sanitation and housing, each of these sub-sectors was treated in isolation.

2. The chapter on Nutrition extensively provided data on food availability without an in-depth analysis of the nutrition situation in Nigeria. Perhaps, the major criticism of the report is that hardly any attempt has been made to provide anthropometric data on the nature and scope of the malnutrition problem in Nigeria. e.g type of undernutrition, prevalence rate, population group most affected etc. The survey data does not include information on number of children whose weight-for-age, height-for-age, or weight-for-age are below WHO recommendation.

Similarly, there is no information on occurrence of nutritional deficiencies or strategies for curtailing them.

3. While emphasis is placed on health in the study, very little information is presented on the actual health situation in the country. The report listed the main causes of mortality as malaria, diarrhea, respiratory disease, infectious disease and accidents. However, no data or estimates are provided.

4. There is enough information on current estimates of infant mortality rate but the report does not provide past data or trends for the past 10 or 20 years.

Conclusion

The consultant has clearly demonstrated his understanding of the health sector in Nigeria. The report did try to provide a significant amount of quantitative information on the health sector. While the results of ACHS household survey also proves to be quite relevant and useful. However, the report cannot claim to be a comprehensive review of health and nutrition in Nigeria.

The consultant deserves his payment. It will be however desirable if he can cover the observed lapses in the study.

Review of Final Report

General Remarks:

Health have been defined as a state of complete physical, mental and social well being and not merely absence of disease or infants. By this definition, it follows that health is an important developmental variable that need special attention in the process of development planning.

Incidentally, the consultant seems to have the necessary skill and expertise required to perform the task of health planning and have tried to collect a mass of relevant data in this area. My immediate reaction

to the report is that it is not properly organised. It may be more educative, informative and logical to organise the report into following chapters or headings:

Structure and evolution of Nigeria's Health system

Review of Nigeria's Health Policy

Health Status of Nigerians

- Demographic profile
- Disease profile
- Nutrition status
- Housing and living conditions
- Economic status
- Quality of environment
- Health care facilities
- Health personnel
- Health financing
- Health education
- Drug supply situation

Observation and Policy Recommendations

Specific Observations:

1. pp. 17. In the statement of the country's health objective no mention seems to have been made of the health problem of the aged. The elderly constitute members of the vulnerable group.
2. pp. 18. There is the need to put in place appropriate and effective mechanism for assessing the environmental impact of development projects as they affect the health status of local communities and the country as a whole.
3. The objective of the country's health programmes listed are relevant and important since health issues transcend all aspects of socio-economic development. What should be more important for purpose of perspective planning are strategies and modalities for achieving the various goals or objectives.
4. After reviewing attempts by Asian countries to integrate traditional and modern medicine, the consultant failed to explain how the country could benefit from the experience of these countries. Further work is expected in this area.
5. Copies of forms A, B and C should be appended to the report to enable close study and appreciation of the types of data collected from the survey.
6. The sample design used in selecting household for the household survey is far from being adequate. The consultant has not demonstrated an understanding of the multi-stage sample design. The sample selection process is to that extent faulty. The design used in selecting health institutions for purpose of the survey is not described in the report.
7. The technique for projecting the country's population is defective. For purpose of health planning, projection of the population by age and sex can be obtained using the cohort component method. These projection are expected to be supplied by the consultant working on population.

8. pp. 52. There is need to define what constitutes a standard meal for the average Nigerian with due consideration to differences in income, occupation, body, weight, place of residence, quality of food, feeding habit, cost of food, etc.

9. The devaluation of the Naira which was expected to have the indirect effect of enhancing farmers income had indeed worsened the country's food supply situation. Food has become very expensive so are the costs of imported modern agricultural inputs like tractors, high grading seed varieties, fertilisers, pesticides, technology, etc. Food supply has therefore dropped considerably.

10. In accessing the nutritional status of Nigerians the important indicators are:

- calorie intake per caput

- protein intake per caput

For broad age groups, sex, place of residence, educational level, occupation, etc, (with special attention to the vulnerable group -children, women and the old), for each state and for the entire country.

These indicators should form the basis for recommending food forms for the different groups and should be estimated on the basis of calorie and protein contents of common food items, food habits consumption patterns, etc.

Indicators of food supply include:

- calorie supply per caput

- protein supply per caput

These should be estimated for each state as well as for the entire country.

For purpose of perspective planning, it is necessary to obtain projections of the following:

- total calorie requirement

- total protein requirement

hence, total food supply to Nigerians.

These projections will then form the basis for projecting food surplus/deficit for each year throughout the plan period.

11. It is necessary for the projection of the demand for medical and health facilities presented in the report to be adjusted in the light of the 1991 population census results. For purpose of balanced development planning, it will be necessary to present the following projection in respect of each state.

- requirements of health facilities at the primary, secondary and tertiary levels of health care delivery.

- drug requirements

- health manpower requirements of all types

- cost capital and recurrent of providing basic health care.

12. The attempt by the consultant at providing time series data on water consumption and water supply is highly commendable. It is, however, necessary to obtain future projections of water consumption for each state in the Federation based on certain target levels of per capita water consumption. Such projection should constitute the basis for planning for adequate water supply. They also provide the basis for determining the capital and recurrent costs of providing enough water to meet the desired targets.

13. In the case of housing, it is necessary to obtain data on past trends of the average number of persons by room household or house as well as the household headship rates. These estimates should then be used in projecting housing needs of Nigerians by state and place of residence (rural-urban). Plans for increasing the

stock of houses by type are based on these projections of housing requirements. It is however pertinent to remark that these estimates and projections are expected to have been supplied by the consultant working on housing.

14. The report seems to be silent on the quality of the environment. Incidentally, this factor has emerged in recent years as an important determinant of health status.

Conclusion

The consultants seem to have demonstrated an indepth understanding of the country's health problems and has proffered several suggestion and recommendations for improving the health status and conditions of Nigerians. What is however lacking in the report is a proper understanding of the methods of data collection and analysis as well as the various techniques of projection in respect to the different aspects of the health system.

SECTOR: **Housing, Building and Construction.**

CONSULTANT: **Comprehensive Engineering Consultants**

REVIEWERS: **Deola Adenikinju**
Wale Ogunkola

Review of Final Report

Terms of Reference:

(see pages 2 and 4 of the report).

What was Implemented

The report is in two parts; the first part addressed TOR (a) to (e) while part two addressed TOR (e) and (f).

Using selected indicators such as, access to municipal and other basic facilities, tenancy, population density and household size the consultant undertook a review of housing conditions in seven five-year periods from 1985 - 89 distinguishing between urban and rural sectors. According to them there was ample evidence of insanitary conditions, over-crowding, and structurally defective housing units especially in the urban sector.

The consultant studied housing supply and demand in the period 1980 - 90 during which there was adequate data. He used estimated stock as proxy for demand and houses completed, and approved building plans of one state as proxy for supply to identify excess demand for housing units.

Identifying specific agencies established and also using plan and budgetary provisions, the consultant reviewed the position of housing in six welfare/national/rolling development plans from 1946 - 1992. According to him there was the era of the establishment of Government Reservation Areas (GRA) followed by the establishment of the LEDB in Lagos metropolis and then the Regional Housing Corporations and finally Federal Housing Authority and Federal Mortgage Bank.

The consultant identified sources of the gap between supply and demand of housing units, as population growth, rapid urbanization and inadequate resources, plan allocations and realizations, and planned allocation and actual allocation.

In his review of public and private sector participation in housing market the consultant observed the dominant role of the private sector especially during the period of the post-1970 oil boom.

The consultant concluded part 1 of the report with a discussion of housing standards. In his view most of the standards currently in use are alien and too restrictive for our own environment. These include housing density per hectare, plot coverage, floor space per person/room and floors per house (height of building).

In part two, the consultant expanded the definition of building and construction to include other civil engineering works besides residential and non-residential housing units.

In chapter VIII, he reviewed the trend of building and construction activities using:

- the share of building and construction in GDP for the period 1962 - 1991,

- housing stock, i.e. estimated housing stock/dwelling units in selected urban centers (1975) State (Urban) in 1975, and state (rural in 1963,
- the industry's activity variables such as employment, gross output, value added for 1980 . National (1976) and state-wise (1980),
- price of building materials and
- basic construction cost.

In chapter ix the consultant categorized the problems facing the building and construction industry into four main parts i.e. high cost, problems of mortgage finance and manpower problems. Attention was focused on building and engineering standards in chapter x. Finally the consultant assumed different population growth rates for urban and rural sectors and different time periods to project housing needs, demand and supply. According to the consultants about 52 - 57% of Nigeria's housing demand will not be met in 2012.

The consultant has succeeded in identifying appropriate indicators for reviewing the historical development in the housing sector but he ignored the trend of these indicators over time.

In the discussion of the supply of housing units he used the time series data on approval of building plans for Bendel State. Although the number of approved building plans is not a valid evidence of supply of housing units some extra effort should have been made to supplement Onibokun's data by visiting the town planning authorities of two or three more states.

In their discussion of housing standards in Nigeria, the consultant has left out statistics of disasters in the housing sub-sector i.e. collapsed buildings (completed or under construction) including number of persons killed/injured and of findings of commissions of inquiries usually set up to investigate the causes of such disasters. In the second part of the report, the consultant ignored any discussion of other civil engineering works such as roads and bridges (or are these excluded from their TOR?).

The consultant made no effort to improve on the scarcity of data which he complained of. He based the report virtually on secondary data from one main source and in some cases did not use such data judiciously. He combined urban data for 1975 with rural data for 1963 into a component bar chart on page 103. In discussing the trend of building and construction activities, the consultant ignored a relevant indicator i.e. supply (production and imports) of: cement, metal rods, wire nails, timber, paints, roofing sheets, asbestos materials and other building materials.

In his discussion of prices of building materials and basic construction cost the consultant cannot validly ignore a comparison of ex-factory prices of selected building materials and retail prices in selected urban centers.

Overall Assessment

The consultant has demonstrated a good knowledge of existing literature in building and construction industry as demonstrated by the review of literature especially in the housing sub-sector.

The analysis was tailored very closely to available data. He did not conduct any survey of his own. He made minimal contribution to available data in the building and construction sector. He demonstrated poor knowledge of quantitative analysis, and did not pay attention to other civil engineering aspects of the construction industry besides housing.

The consultant demonstrated professional competence in studying this sector but his effort should have been complemented by that of a quantitative economist.

SECTOR: Informal Sector

CONSULTANT: Resman Associate Limited

**REVIEWERS: Jimi Adesina
Deola Adenikinju
Saa Dittoh**

Review of Draft Final Report

I. Scope and Work Content Envisaged

(a) The study was meant to cover the informal sector for which a working definition was provided, which also defined the intended scope of coverage as follows:

(i) Small Scale Distributive Trade, by self-employed persons or in establishment of less than 10 employees, and

(ii) Crafts, (which will include all other services-repair and maintenance men, carpenters, taxi drivers, cooks, masons, and all other services and occupations not already included under agricultural or manufacturing production) conducted by self-employed person or by establishments with less than 10 employees.

Expected Implementation:

Since this has been a sector on which very few regular and formal studies have been undertaken and/or documented, the major merit of this particular study would relate to designing appropriate methodologies, measures and indices for the formal analysis and documentation of the activities of the sector.

What was Implemented and Suggestion for Further Work

In a rather ingenious way, the consultant initially set aside the rather restrictive and rather statistical working definition, substituting his own working definition, which is more relevant to the context of the study [pp.5-6]. The Consultant's working definition is more operational and less mechanical than the sampling definition of the terms of reference (TOR), which focuses on size of labour force employed, neglecting all the other relevant parameters that determine the nature of inputs, output and scale of operation, which distinguish the informal sector from the formal manufacturing sector. This was a very useful modification of the given TOR.

However most probably out of fear of being faulted for not sticking to given TOR, the consultant abandoned the much more functional working definition it suggested, to stick to the working definition in the TOR. If there is any way in which the alternative working definition and its implications for the methodological approach to the study of this sector can be reflected in the final report, it would be most welcome and very useful. It may be too late to employ such in executing this particular study. It would however prove very useful in the utilization the results emanating from the study, and more importantly for subsequent studies. This is

very important, in view of the fact that this is a sector on which little has been done in the past by way of documented studies.

This is the idea behind the way and manner the coordinating consultant has sought to re-interpret the original given TOR.

(b) It was also intended that the study would serve as background for the 15-20 year Perspective Plan of Nigeria, and will assemble existing data and obtain additional data on the informal sector.

What was Implemented and Suggestions for Further Work

There was very little of existing data to assemble. whatever little quantity of data that was available either from earlier studies, FOS sources, or the previous plans were assembled. The study did generate a considerable amount of its own new data based on a sample survey. A major snag in the collation of the new and old data was the fact that these were assembled and employed independently. The intention behind the requirement that new data be generated was that this would provide a basis for extending and updating and supplementing any already available data or discarding them if they are invalidated by the new study. There would be the need to undertake this relating of the new set of data to the old as much as possible in the final report.

II Detailed Terms of Reference

TOR(1) "Review the literature pertaining to the past behaviour of the two informal sub-sectors, presenting the information obtainable for the period 1955-1986 on employment, levels of pay, contribution to value added. et al., as disaggregated as possible, and as analysis of the changes observed which can be traced to market forces, and those which can be traced to past government policies and programme".

Expected Implementation

What is expected here is a comprehensive review and summary of whatever previous work may have been undertaken and documented in this area. Even though there is no specific mention of Nigeria it would be expected that the particular focus of the review would be on work that has been done on Nigeria. It would however be quite useful to also include whatever similar work may have been undertaken in respect of other countries that have some bearing or relevance for comparative purposes on the Nigerian situation. It is to be expected, given the relative neglect of this sector over the years, that there would not be too many of such studies, hence it would be most useful to have a detailed and careful review documented material that may be available in libraries government agency sources such as relevant ministries or parastatals that are likely to have documented work (even if not published) on activities that come under the informal sector.

What was Implemented and Suggestions for Further Work

This was done quite satisfactorily with adequate review of two earlier studies [pp. 22-29]. There was a very comprehensive review of government policy and relevant institutions having one thing or the other to do with the activities in this sector, [pp. 1-28]. This detailed analysis was based on a survey [pp. 99-103] which was not required in the given TOR but was conducted on the Consultant's own initiative, based on their

judgement as to how best to obtain the relevant information which are often not available in published sources such as annual reports. This highly commendable resourcefulness on the part of the consultant was most rewarding in terms of the amount of very useful previously undocumented information that was generated. The consultant was able to put these into effective use in describing the activities of a sector on which hitherto very little was known.

TOR (2). "Conduct a survey, with the assistance of the Federal Office of Statistics, based on a medium size sample of self-employed persons and productive units employing less than 10 persons, stratified by state of the Federation. Covering the two informal sub-sectors to determine:

- (a) The representative unit cost of production, broken down by each sector of the country's inter-sectoral classification, and by primary factors. Particularly on this will be provided by the Coordinator.
- (b) Present an analysis of the effect of input costs and sales price of the service(s) on the profitability of the self-employed workers' activity of the service-supplying enterprise. Whenever fixed costs be detected, conduct it as a summary break-even analysis.
- (c) Ascertain which other quantitative or qualitative market aspects of institutional aspects, influence positively or negatively supply and demand conditions facing the self-employed worker or enterprises. For these two informal sub-sectors, particular attention should be given to the relative use of domestic vs. foreign inputs, estimates of capital-labour ratios when relevant, access to the unorganized or organized credit sources and at what cost, how the relevant skills were acquired, relations with suppliers and customers, and other aspects of risk and uncertainty surrounding the operation."

Expected Implementation

The primary objective here was for a major pioneering effort to be undertaken in seeking to have activities in this sector fully documented for the first time, in a manner that would be comparable in scope and level of disaggregation to what obtains in the formal sector, for which there has been over the years a regular documentation of directly productive economic activities within the framework of National income accounting. While the possibility of obtaining time series data cannot be ruled out, what would be expected is an extensive coverage to obtain cross sectional data as suitable bench marks for any future work to generate time series data.

- (ii) It is expected that meticulous attention would be given to the definition of variables, the design of methodologies, measures and indices for obtaining the desired quantifiable information, as well as a detailed documentation of these.
- (iii) Emphasis is also expected to be placed on obtaining relevant institutional or qualitative data on the various factors which influence the level, scope and general direction of economic activities in this sector. This would particularly focus on policy needs of whatever analyses may be based on the quantitative parameters and variables.
- (iv) Wherever possible, the results from this survey should provide a basis for validating, rationalizing and updating any existing available data on the activities of this sector.
- (v) It is to be expected that the information will be detailed enough for the purpose of providing inputs for an I-O type of transactions flow matrix.

What was Implemented and suggestions for Further work

(i) Fourteen of the states of the Federation were covered. From a purely statistical and sampling point of view this was quite satisfactory.

(ii) A major basic flaw of sampling over which the Consultants could not be expected to do much given the time constraint was the absence of a formal sampling frame. This has led to a number of other related problems. This, for example, most probably accounts for why all sample locations were restricted to urban centres, which the consultant perhaps found more convenient. While it may be true that a considerable amount of informal sector activities go on in the urban areas, especially in the area of distributive trade, the second category of activities covering crafts and cottage industry types, are likely to abound in the rural areas. The sampling locations ought to have combined rural with urban locations. Again from a statistical point of view, this is not likely to introduce any major limitations into the results.

(iii) One of the primary objectives of the sample survey prescribed for this study, was that it would provide a basis for deducing population estimates in relation to key magnitudes and variables in this sector. In the absence of a reference sampling frame, and with no indication whatsoever as to how any user of the data obtained might proceed in this regard, the realization of this objective is likely to be difficult if not impossible. For example, looking at Table 4.4 [pp. 131] for activity group 01, a sample of 654 was taken without any indication whatsoever of what the criteria for determining this figure was other than the fact that the 654 may have been selected randomly or based on systematic sampling. There is no indication of the extent of coverage of the activities or the population of relevant activity groups in each sampling location.

While sampling estimates of some parameters may prove to be satisfactory estimates of the underlying population parameters, more work need to be done before population magnitudes can be correctly estimated from sampling information. Ways of doing this have already been discussed with consultant by the coordinating consultant.

(iv) As was to be expected, very little was achieved by way of obtaining time series data. While this could pose a major problem to the ability to make time series based projections or extrapolations for most of the key variables and parameters, the cross sectional data obtained were quite extensive in coverage. These were mostly obtained for the first quarter of 1990. This notwithstanding they are capable of serving (when blown up into annual figures) as crucial initial values for any dynamic simulations that may be required within the context of plan preparation. These bench marks if properly used, along with the wealth of information provided by the sample survey could serve as a more preferable basis for projections compared with any currently available time series data that are likely to be less reliable and less current.

(v) The methodology adopted for sample design and measurement of various variables were adequately documented [pp. 117-125]. Similarly, the methodology for analyzing the results was properly documented. This would prove very useful not only for any future studies on the sector, but also in guiding the applications of the results obtained in the current plan preparation exercise.

(v) The response rate of nearly 96% in the sample survey was most satisfactory. However in the absence of any reference sampling frame, it is difficult to ascertain whether the sample size of 3225 was adequate or sufficiently representative of the underlying population. This has already been discussed under point 2(iii) above.

TOR (3). "Establish criteria, in cooperation with the Federal Office of Statistics, for inferring the statistical population from the samples in the two informal sub-sectors."

Expected Implementation

It was expected that the consultants would be able to work in conjunction with the FOS to establish the basis for this inference.

What was Implemented and Suggestions for Further Work

Very little if anything at all has been done in this regard. The problem has already been discussed under 2(iii) above. Without this basis for this kind of inference, the very valuable and extensive information obtained from the sample survey would be under utilized. This is quite critical in the absence of any earlier studies which may be capable of providing a basis for making such inference. A quick supplementary survey taking advantage of the overheads for the main surveys as has already been suggested to the consultant would solve this problem, especially if the FOS is not in a position to supply the needed information in the required format.

TOR (4) "Prepare, in cooperation with the specialist in charge of the study on Population, Migration and Employment, and the specialist in charge of Education and Manpower alternative 20 year projections of employment and value added in each of the two informal sub-sectors, based on alternative assumptions regarding population growth rates, consumption of income growth rates, and exchange rates, which will be provided by the coordinator; summarize their implications for ratio of capital and foreign exchange to labour use in the sub-sector".

Expected Implementation

It is expected here that the results from the sample survey would serve as basis for these projections. In the very likely event that suitable time series data cannot be obtained from the survey, there should still be a way of making the best out of whatever cross sectional data is obtained. In this regard the consultant would have to rely on his expert knowledge regarding the characteristics and the workings of the sectors to make relevant assumptions regarding most plausible growth rates for the various relevant variables, such that simple time trend projections can then be made for each of them. As the information from the other sectors become available, the alternative scenario projections can then also be undertaken.

What was Implemented.

(i) Not surprisingly no attempt was made at all to utilize the results from the sample estimates for the projections. This has not been feasible for a number of reasons, key amongst which are likely to be the fact that the estimates were only for a single quarter in 1990 and are yet to be blown up into annual data. Secondly even after this has been done there would still be the problem of correctly inferring the population magnitudes from the sample magnitudes as earlier discussed.

(ii) Utilizing the projections from previous plans, as basis for the new projections was not too desirable. The objective of the sample survey was to yield some new empirical basis for revising these earlier projections or updating any existing information. Whatever the limitations of trying to use the highly limited information

obtained from the sample survey would in our view be superior to merely extending the projections in earlier plans and which are likely to have been based on data assumptions that are by now quite obsolete. As things now stand, the projections are totally unrelated to the data obtained from the survey. It is necessary to forge a linkage, either by way of relying entirely on the sample survey data for the projections as suggested above under what is expected in implementing this TOR, or alternatively where feasible to use the newly obtained statistical and other information from the survey to validate and/or update any already available data before resorting to the regression analysis reported on page 212-221(a). Given the relative neglect of this sector in the past, it is doubtful if any information superior to what has been obtained from the current sample would be available. Greater use should therefore be made of the wealth of information obtained from the sample survey whatever their limitations might be. They are at the very least the most current hence, simple straight line projections based on them may be preferable to any more formal basis for obtaining the projections.

(iii) The comparative analysis and scenario undertaken [pp. 199-212], would be very meaningful and useful if and only if the underlying data are sufficiently accurate. At the moment, this is not likely to be the case as they are based on the wrong set of data. Deriving the underlying data from the sample survey data along the lines already suggested would considerably improve the usefulness of this particular exercise.

TOR (5) "Suggest specific government policies and programmes which include: increase the efficiency, improve the working condition and reduce the uncertainty surrounding the activities of the two informal sub-sector."

Expected Implementation

From the earlier review of government policies and the information to be obtained from the sample survey, it is expected that the consultant would then be in a position to make relevant suggestions by way of government policy programmes implementable within the context of the plan, to improve the workings of this sector, and increase its potentials for increased productivity and making greater contribution to the process of economic growth and development.

What was Implemented and Suggestions for Further Work

This was executed most satisfactorily and quite comprehensively. There will however be the need to relate the specific policy recommendations to the context of the plan, to ensure that what is being proposed in each case is both feasible and realistic, given the planning horizon and the available instruments for realizing the targets. Here again the various policy prescriptions cannot but be related to the findings from the survey, and the projections that would derive therefrom.

III Overall Evaluation and Recommendation

(i) This is a highly readable report. It leaves no one in doubt that much painstaking effort has gone into the execution of the given terms of reference, including the extensions and re-interpretation suggested by the coordinating consultant.

(ii) The consultant meticulously followed the given TOR, both in the implementation of the study, and in the presentation of the report. This makes for easy evaluation of what has been accomplished.

(iii) While there is much to be improved upon, especially by way of better and fuller utilization of the survey results, the consultant has already accomplished much of what was envisaged in the given TOR. This

is especially true when the fact is borne in mind that for all practical purposes most of what was done was pioneering effort with little or nothing of previous or supplementary ongoing studies to draw from.

We recommend that the consultant be paid their next instalment to enable him carry out the suggested modifications before the presentation of the final report.

Review of Final Report

General Remarks

The role of the informal sector in enhancing the pace of economic growth and development need not be over-emphasised. Aside from generating employment for the substantial proportion of job seekers, these small scale establishments tend to contribute more to the country's GDP in terms of value added. They in most cases engage in transformation or conversion of raw materials into intermediate and finished products.

Informal sector enterprises are also expected to provide the basic inputs that will help to ensure that enterprises operating in the formal sector are less dependent on imports for sourcing their raw materials and other inputs.

Small scale enterprises provide the best environment for meaningful transfer of technology and the development of indigenous technology by tapping on the ingenuity and innovativeness of the operators of these small scale manufacturing enterprises. Moreover, the activities of operators in this sector are very essential for daily production for families, communities and institutions.

The fact that a substantial proportion of the country's labour force are engaged in this sector underscores the importance of an indepth study of the activities and operation in this sector of the economy.

Specific Observations

1. The consultant should be made to realise that the role of the coordinating consultant is to provide technical back stop for the perspective plan as well as ensure that the various sectoral reports are properly synchronised into an integrated long-term plan. Even though some of the issues raised by the coordinating consultant may not be contained in the terms of reference, the consultant is expected to incorporate any other aspect that they consider relevant and material to planning in the different sectors.
2. The sample design used in selecting the establishments to be covered in the survey does not seem to be adequate. The fact that these establishments are numerous and dispersed in different locations, makes it difficult to adopt conventional sample designs. Sampling is also complicated by the fact that these establishments are not registered, that it, is difficult to obtain or compile a sampling frame for this purpose. Extra caution is therefore called for, if the samples are to be representative.
3. In discussing the conditions for disbursement of loans, the consultant failed to address the issue of the modalities for recovering bad and doubtful debts as well as sanctions for non-repayment of loans or lack of compliance with loan repayment guidelines.

4. Value added = Gross output - Industrial cost
 Profit = Value added - Labour cost.

5. Tables 4.4, 4.5, 4.6 and 4.9 should contain the percentage distribution to facilitate their interpretation. Comments on the tables should attempt to point to the consequences of observed pattern and trends. These should form the basis for making policy recommendations. The approach used in estimating the average monthly capacity utilisation presented in table 4.7 is not explicit.

The average monthly rent, the cost of raw materials, and the cost of public utilities consumed and miscellaneous cost should be expressed as a percentage of the operating cost. Table 4.20 and 4.21 should show:

- monthly profit
- monthly salary
- percentage profit = $((\text{profit}/\text{sales}) * 100)$
- capital employed
- return on investment = $(\text{Profit}/\text{capital}) * 100)$

6. The regression models used in projecting value added are wrongly specified. Instead of GDP, the share or distribution of the informal sector to the GDP should be used as the explanatory variable.

A more realistic approach will be to present the value added by activity groups and add up to obtain projections for the informal sector. An approach based on the dynamic input-output model is expected to produce better projections of value added by activity group or classification.

The concept of gainful employment as used in the report is not clear. Is it referring to total gainful employment in the formal sector alone or total gainful employment in both the formal and informal sectors? The consultant's method of projecting the demand for labour in the formal sector seems inadequate or inappropriate. Employment projection for each activity group by state should be made using the following methods:

- employment-value added functions
- inverse cobb-Douglas production functions

7. Table 4.23 should also present the average labour productivities for each of the activity groups.
 Labour productivities = Total value of output / Number of workers engaged.

8. Since the problems confronting informal sector enterprises vary with type of activity, it will be more informative to present these problems according to activity groups. Through this type of analysis, it will be easier to appreciate the magnitude and seriousness of the problem peculiar to each industrial or activity group, thereby providing the basis for policy recommendations and suggestions.

9. It is necessary to rank informal sector enterprises in each activity group according to their level of perception of the seriousness of the effects of various government policies and programme on their operations.

Conclusion

On the whole, the consultant's attempt at researching into this hitherto neglected but crucial sector of the economy is highly commendable. He has demonstrated skill and expertise in this area. Apart from presenting the result or findings of a nation-wide survey, he has extensively explored existing sources of data.

The recommendations contained in the report for improving the level of productivity and increasing the value added and hence the contribution to GDP by this sector needs to be explored.

It is necessary to remark finally that the various concepts, techniques and methodology used in the report need to be reviewed, since a good number of them seem inadequate or inappropriate.

SECTOR: Livestock

CONSULTANT: Kela Consults (Nig.) Ltd.

**REVIEWERS: Saa Dittoh
Bayo Aromolaran**

Review of Draft Final Report

I. Scope and Work Content Envisaged

(a) The study was to cover the main groups of livestock, namely, large ruminants (mainly cattle), small ruminants (Sheep and goats), monogastric (Pigs and rabbits) and poultry (exotic and local birds).

What was Implemented

All these groups of livestock were covered in the study and reported.

(b) The study was meant to basically:

- (i) Review the past performance of the livestock sector
- (ii) Conduct a survey to determine costs of production of various livestock production systems.
- (iii) Make 20-year forecasts of production and demand and draw 20-year balance sheets.
- (iv) Suggest innovations, policies and programmes.

What was Implemented and Suggestions for Further Work:

All these areas were covered quite adequately even though we are very disappointed with the results of the field survey. We believe the consultant did the best in the circumstances. The consultant should however make detailed suggestions as to how livestock data can be successfully collected based on this field experience.

The demand and supply projections in Chapter 3 are very commendable even though the assumed demand and supply growth rates seem to be too high in most cases. Also commendable are the model livestock enterprise budgets given in Chapter 4.

II. Detailed Terms of Reference

(a) **TORs 1 and 2.**

Expected Implementation:

A comprehensive review of existing literature which includes research works, annual reports of organizations and institutions, Federal and state Governments policy statements, development plans, budgets and others was expected.

What was Implemented and Suggestions for Further Work.

This was adequately done. Development plans, the Central Bank of Nigeria (CBN), the Federal Office of Statistics (FOS), the Federal Department of Livestock and Rest Control Services and the Food and Agricultural Organisation (FAO) as well as published research works were the main sources of information.

(b) TOR 3**Expected Implementation**

It was expected that a field survey would be carried out in all States of the Federation and covering all classes of livestock and production systems. Also summary breakeven cost analyses were to be carried out.

What was Implemented and Suggestions for Further Work

From Chapter II of the report, it is obvious that an extensive field survey was carried out. However very disappointing results were obtained. The consultant should give detailed description of the problems encountered in data collection and as suggested earlier make detailed suggestions as to how best livestock data could be obtained.

There is need to reedit and restructure Chapter II of the report for it to flow with the rest of the report. Also, though the data obtained from the field is very scanty and may be highly unreliable, the consultant is still the best person to make the necessary estimates for breakeven analyses. The breakeven analyses should be undertaken as required by the TOR.

(c) TOR 4**Expected Implementation**

Preparation of 20-year forecasts of livestock production, domestic and export demand for various livestock products and alternative 20-year balance sheets.

What was Implemented and Suggestions for Further Work

This has been adequately carried out.

(d) TOR 5 and 6.**Expected Implementation**

It was expected that suggestions should be made as to necessary innovations, policies and programmes that should be instituted in the long term for the development of the livestock sector. The suggestions were to be made based on the information obtained and from the experiences of other countries. Also estimates of public investment and recurrent expenditures that would be required were to be given.

What was Implemented and Suggestions for Further Work.

Chapter 5 of the report attempted to cover these TORs. The very good ideas in the Chapter have however not been presented in a consistent and logical manner. When that is done, the Chapter will excellently cover the TORs even though the experiences of other countries were not considered explicitly. We suggest that the development proposals be made according to ecological zones except may be for poultry. It

should also be noted that this last Chapter is also expected to indicate "appropriate public investment and recurrent expenditures involved" in the suggested changes in the current government administrative practices.

III. Overall Evaluation and Recommendation

Considerable work has been done by the consultant. Chapters II and III supply very invaluable information for perspective planning purposes while Chapter V has good ideas for future livestock development. The main areas that need some attention include breakeven analyses based on data from the field survey.

We recommend that the consultant be paid the next instalment and be given a deadline to submit the final report. We suggest the deadline should be a month from the day the consultant gets this review.

Review of Final Report

I Scope and Work Content Envisaged

(a) The study was to cover the main groups of livestock:

- (i) Large ruminants -mainly cattle
- (ii) Small ruminants -Sheep and Goats
- (iii) Monogastric -Pigs and Rabbits
- (iv) Poultry -Exotic and Local Birds.

What was Implemented

All these groups of livestock were covered in the study.

(b) The study was meant to:

- (i) Review the past performance of the livestock sector;
- (ii) Conduct a survey to determine costs of production in various livestock production system;
- (iii) Make 20 -year forecasts of production and demand and draw 20 -year balance sheets; and
- (iv) Suggest innovations, as well as policies and programmes to bring about such innovations.

What was Implemented

All these were very well executed in spite of the problems that were encountered in data collection. Very commendable are the demand and supply projections in chapter 3, the model livestock enterprise budgets in chapter 4 and the livestock development proposals in Chapter 5. This sectoral report will definitely be one of the most useful inputs into the Perspective Plan.

II. Detailed Terms of Reference.

TOR (1 and 2)

- (i) "Review the past performance ... the survey"
- (ii) "Review in more detail ... policy"

Expected Implementation

A comprehensive review of the literature on livestock policies and programmes, production, marketing and so on in the country. It was expected that the main source of literature would be research works in Research Institutes and the Universities, annual reports of organisations and institutions, Federal and State governments policy statements, development plans budget and others.

What was Implemented

The review was adequately done. Development plans, publications of the Central Bank of Nigeria (CBN), the Federal Office of statistics (FOS), the Federal Department of Livestock and Pest Control Services and the Federal Agricultural Organisation (FAO) as well as published and unpublished research works were reviewed.

TOR 3

"Conduct a Survey ... these Variables".

Expected Implementation

It was expected that a field survey would be carried out in all or selected States of the Federation and covering all classes of livestock and production systems. Summary break-even cost analysis were also expected to be carried out.

What was Implemented

An extensive survey was carried out even though very disappointing results were obtained. The consultant has highlighted the problems of livestock data collection in both households, and established livestock enterprises. It is hoped that the Department of Livestock and Pest Control Services of the Federal Department of Agriculture will urgently address this problem.

Instead of the conventional break-even analysis, the consultant undertook analyses of model livestock enterprises budgets which are even more useful for planning purposes.

TOR 4

"Based on ... the Preceeding".

Expected Implementation

Preparation of 20 -year forecast of livestock production, domestic and export demand for various livestock products and alternative 20 -year balance sheets.

What was Implemented

The forecast and balance sheets have been adequately done.

TOR (5 & 6)

- (i) "Suggest, if Relevant ... of Paragraph 3"
- (ii) "Analyse ... Expenditure Involved".

Expected Implementation

It was expected that suggestions would be made as to necessary innovations, policies and programmes that should be instituted in the long term for the development of the livestock sector. The suggestions were expected to be made based on the information obtained and from the experience of other countries. Also estimates of public investment and recurrent expenditures that would be required were to be given.

What was Implemented

Chapter 5 of the report adequately covered TOR 5 and 6. Extensive suggestions have been made on development programmes for the various livestock and where the programmes should be concentrated within the country. Financial requirement for the public sector to implement the proposals have also been given.

III. Overall Evaluation and Recommendation

The final report of the livestock sectoral study provides valuable information for Perspective Planning. We commend the consultant for a good work done. The report is accepted.

We recommend that any outstanding consultancy fees should be paid.

SECTOR: Manpower

CONSULTANT: Manpower and Industrial Relations Consultants (MIRC)

**REVIEWERS: Sam Olofin
Wale Ogunkola**

Review Interim Report

I. Conformity with Terms of Reference

1.1. This appears to be a quick and short report of 13 pages, stating intentions, without having had the opportunity to look at the given Terms of Reference (TOR) closely. It is necessary that the consultant takes a careful look at the given TOR and if need be to discuss each item in the TOR with the project coordinator with a view to having a full grasp of what is envisage.

1.2. There is no indication of any work having been carried out by way of implementation of any of the major tasks envisaged in the given TOR. It is quite possible that work has begun after the submission of this quick statement of intentions.

1.3. It is necessary in working towards the preparation of Draft final report, that the consultant pay particular attention to the greater premium that is expected to be placed on the effort to generate fresh statistical data and other relevant information from the prescribed sample survey, over and above the review of past performance based on existing data. It is suggested that in allocating time and investigative effort considerable attention should be given to the design, and implementation for the sample survey. The primary purpose of the survey are among other things aimed at:

- (a) providing a basis for updating and validating existing data from secondary sources.
- (b) serve as a basis for filling gaps or supplementing existing statistical data and other information or substituting for them.
- (c) where need be, provide new relevant data that may have been unavailable hitherto. Provide a more current and perhaps more reliable basis for making projections for the future.

1.4. It is quite understandable why it may be too ambitious to expect that the survey would yield time series data and what might be more realistic to expect is cross sectional data to serve as bench mark for forecasting. This is why much effort has to be devoted to executing the survey painstakingly in order that it might yield useable and more reliable information.

1.5. For the purpose of developing the I-0 vectors and determining inter-sectoral transaction flows, the National Income Accounting framework in the Rolling Plan is being adopted for the purpose of sectoring the economy. A copy of the relevant document on this and other specific assumptions regarding time trend growth rates for key economic indicators, and other related assumptions have been provided. [A copy should be picked up from the Perspective Planning Unit (PPU) at the Ministry of Budget and Planning]. Any problems in utilising these assumptions should be referred to the plan coordinators through the PPU.

1.6. The intended coverage of the survey to cover eight states [p. 7] may not be as representative as assumed, without reference to appropriate sampling frame(s). This should be available at the FOS. Similarly decision on the size of the sample should be related to the sample frame, otherwise the figure 1940 may not be sufficiently representative if not arbitrary.

1.7. Rather than the sector taking a cue from the macro framework for making its projections, it is expected that the projections from the sector (like for the other sectors) based on the consultant's expert knowledge of the sector, would guide the macro projections. It is therefore expected that the consultant would undertake ex-ante projections, with a full documentation of the underlying assumptions, to facilitate any necessary modification of the projections as inputs into the macro framework. Where information is required on other sectors of the economy this should be based on extrapolation of past trends using the data from the Rolling Plan provided by the Plan coordinator.

1.8 The intended methodology for obtaining I-0 transactions flows (pp. 11 - 13) looks quite promising if properly implemented.

II. Amount and Suitability of Statistical Data Presented.

No work has been done as at the time of presentation of report to warrant the presentation of statistical data.

III. Amount and Suitability of Non-Statistical Information Made Available

Same comment as under (2).

IV. Evaluation of the Promise of Further Work Envisaged

From the statement of intentions the consultant leave no one in doubt that the project will be well executed. It is necessary as already emphasized under (1) that considerable attention be given to the survey because much of the expected output of the study as inputs into the Perspective Plan would derive from it. We are therefore expecting a thorough survey and analysis of the data obtained. We are also expecting that the methodology and assumptions for obtaining the projections will be fully documented. Suggestions of policy and institutional reform programmes should be formulated with the planning context and planning horizon in mind, regarding feasibility and relevance.

V. Overall Recommendation

We recommend as a matter of uttermost urgency in view of the limiting time constraint involved, that the consultants be paid a substantial sum of their budget to facilitate speedy and thorough implementation of the study, if this is yet to be done.

Review of Draft Final Report.

What was Implemented

The consultant reviewed Nigeria's manpower planning experience starting with the Ashby Commission report, the subsequent fivefold increase in the production of University graduates after 1959 and the post 1970 phenomenal increase in the establishment of tertiary educational institutions following the oil boom. The review showed how this politically motivated educational policy led to graduate unemployment in the wake of scarcity of middle level manpower and the subsequent establishment of the Manpower Board. Major constraints to effective manpower planning were identified as the lack of coordination of manpower planning activities, and paucity of reliable manpower statistics. The consultant conducted a sample survey of employment and vacancies in selected occupations. From a sample of eight states, 1,190 establishments employing ten or more persons were selected using systematic sampling design. Data collection was by administered questionnaire and 400 professions grouped into nine ISIC categories were covered. The representativeness of the sample was demonstrated using a number of characteristics including geographical and sectoral distributions, ownership pattern and distribution of workers according to gender. The consultant recorded a response rate of 69 percent of the establishments sampled. These establishments employed 142,510 persons consisting of 84 per cent male, 15 per cent female and 1 percent non-Nigerians. A comprehensive listing of the occupational categories was displayed in table 14 which also included a detailed breakdown of the 1985 vacancies observed in the 823 establishments. Using the observed sample data and assuming a total wage employment of 2.4 million the consultant estimated manpower requirements on occupational basis for 1992. They assumed an annual growth rate of 1.35 per cent and wastage rate of about 2.5 per cent to project the stock of wage employment for year 2012 and the additional requirement for the period 1992 for a total of 32 broad occupational categories. According to the consultant the projections indicate that every sector is characterized with a higher demand for skilled manpower than the tertiary institutions can cope with. Also they observed growing structural unemployment and suggested that no new universities be established during the first half of the perspective plan period.

The consultant did not state clearly the terms of reference and this does not facilitate the evaluation of their report. The consultant did not also state the size of the frame from which their sample of 1,190 establishments was selected. The systematic sampling design was not described in sufficient detail to facilitate evaluation of the selection procedure.

The consultant identified Columbia as a country whose experience resembles Nigeria's vision by the end of the perspective plan period but failed to use this information in making their projections of manpower requirements which were based on constant rate of growth for all occupational categories for a 20 -year period.

Overall Assessment

The consultant made good use of the existing literature. The sample survey results which contain detailed breakdown of manpower data are adequate for the purposes for which they were used. The reported response rate is much higher than those reported by most other consultants. The consultant has demonstrated adequate competence in studying the manpower component of the perspective plan project.

Review of Final Report

General Observations:

Aside from reporting the results of a survey that had an improper focus, the account contained in the report is rather historical and does not properly address issues pertinent to manpower planning in the quantitative sense. The consultant hurriedly embarked on a survey without exploring the rich sources of secondary data (hitherto not analysed) that exist on this subject. For example, the different surveys conducted over the years by the Federal Office of Statistics and the National Manpower Board, as well as the numerous publication of these two government agencies.

The survey data should be re-analysed if the money invested in it is not going to amount to a complete waste of resources. For example, the classifications and tabulations are grossly inadequate and inappropriate.

The basis for the assumptions underlying the manpower forecasts contained in the report are not explicitly stated. More importantly, it will be necessary to examine the different scenarios in obtaining acceptable forecast of manpower requirement.

The very fact that the report failed to present comprehensive (5- yearly) manpower balance sheets for the country expresses doubts as to the extent to which it has achieved its set objective of determining the economy's strategic manpower requirement over the next 20 years.

Specific Observations:

1. It is pertinent to remark that the survey embarked upon lacked clear objectives and is infact out of place. The type of data generated from the survey already exist in the FOS -as a by product of their annual industrial surveys as well as agricultural surveys (small and modern holdings) and the National Manpower Board as a by-product of its labour force sample surveys. One would have expected the consultant to tap extensively from these sources of secondary data and restrict the survey to the informal or unorganised private sector in respect of which little or no information is currently available. Unfortunately, the study limited itself to mere mention of this sector instead of an indepth study of the manpower situation in this catch-all sector in terms of labour absorption.

2. Education, particularly higher education which forms the basic input for manpower planning is not adequately covered in the report. Statistics on endowment and output from the different tertiary educational

institution by discipline and sex ought to be presented and discussed with a view to examining past trends and their policy implications as well as making future projections.

3. The basis for projecting manpower requirements for each sector and each industrial groups is not explicit in the report. Obviously the method of projecting manpower requirements in the public sector differs from that in the private sector where tenure of employment are relatively shorter due to high rate of labour turnover. There is need for detailed study of public and private sectors

- recruitment for each grade
- promotion rates and patterns for each grade
- attrition or wastage rate and pattern by grade
- vacancy rates for each grade

Whereas forecast of manpower requirements in the public sector should be based on proper and decanted job specifications, the consultant does not seem to have made any effort by estimating the manpower needs of this sector. Estimates of manpower requirements for this sector should be made after proper review of the manpower estimates contained in the annual budget proposals made by the various ministries, department and parastatals. These estimates should be revised, the high job specifications for the higher cadres and for the intermediate and junior cadres, estimates should be based on acceptable norms in terms of the ratio of senior cadre to intermediate cadre and intermediate to junior cadre but with the consideration for the optimal span of control.

In the case of the private sector, estimates of manpower requirements for each sector should be based on forecast of output and labour productivity.

One set of very useful indicators for effective manpower planning is the labour absorption capacity (by class or category of labour) for each of the public and private sectors of the economy and by activity group. Unfortunately, the report neither made intention of this explicitly nor contains data that would be useful in computing these indicators.

4. The assertion that employment is expanding and that companies are beginning to recover from the recession cannot be substantiated or justified on the basis of output in the various sectors since the structural adjustment programme is still very much in force. Indeed recent monetary and fiscal policies do not seem to be consistent with increased employment in nearly all the sectors of the economy.

5. While the consultant seems to have emphasised the issue of mis-match in the existing manpower mix in the country, he has not provided empirical evidence to explicate this fact. This raises the need for a comprehensive national manpower balance sheet showing the demand for and supply of manpower of different categories in the different activity and occupational groups.

This balance sheet should display the existing manpower stock and projected additions through the output of graduates from the various tertiary level institution (including technical and vocational schools) (supply) as well as the manpower requirement for each activity/occupational group (demand). Such a matrix provides the basis for determining the extent of mis-match in the different sectors and for the different skills and therefore constitutes the basis for any meaningful manpower plan.

SECTOR: Manufacturing

CONSULTANT: Enterprise Consulting Group limited (ECG)

REVIEWER: Olutayo Iyaniwura

Review of Interim Report

I. General Comments: In the interim report submitted the consultant has conformed with most aspects of the TOR while he seems to have misconstrued a few aspects as will be shown in the detailed comments. He has made good use of available data and the choice of economic indicators is satisfactory. The scope of the analysis can however be widened given historical data on some key economic variables spanning over 30 years. There is ample demonstration of understanding of the impact of past policies in Nigeria's industrial development to date. On the sample survey of selected manufacturing firms, the questionnaire design and the selection procedure are satisfactory. The reported response rate of less than 14 per cent after 2 1/2 months of fieldwork is small unless the respondents are extremely representative of the sampled population.

II. Conformity with Terms of Reference:

The consultant has in most respects conformed with the TOR but his attention should be drawn to the following:

In the TOR 1 and 2 the specialist is asked to:

- " 1. Review the past performance of manufacturing production based on data at 5 year intervals during the period 1955 - 1980 ..."
- " 2. Review in more detail, yearly, the more recent performance using the type of data as 1., for the period 1980-85..."

These seem to suggest that the consultant was supposed to analyse the time series for 1955, 1959, 1963, ... 1971, and 1979 as one data set and the time series for 1980, 1981, 1982, 1983, 1984 and 1985 as another data set. The consultant studied the following five 5-year sub periods 1955-59, 1960-64, ..., 1975-80 and studied 1980, 1981..., 1985 as individual years. CEAR's understanding of the TOR will facilitate the study of trends while the approach by the consultant is rather discrete. The National Planning Commission (NPC) may have to clarify this aspect of the TOR. The key economic variables selected for study conform with those envisaged in the TOR.

With respect to the survey of manufacturing firms the TOR requires that the assistance of FOS be sought in conducting the survey but for reasons bordering perhaps on timing and logistics this was not possible. There is need to look for ways of improving on the reported response rate if the survey results are to be useable as specified in the TOR.

The consultant has conformed with the TOR in the selection of firms to be interviewed and the content of the questionnaire which is as agreed with CEAR is satisfactory. The selection of the survey years

1985-1988 such that it overlaps by one year with the latest survey by FOS for 1985 is a wise decision as this provides some basis for comparing the two sets of data.

It is rather ambitious to envisage the construction of a 52 x 52 I-0 table as stated on page 2.3 of the report as most of the cells of such a table will be empty. Although the ISIC codes of selected firms have not been reported it may not be feasible to envisage an I-0 table exceeding 10 x 10 with the anticipated data-base.

III. Amount and Suitability of Statistical Data:

A good deal of useful and relevant statistical data have been collected and analysed in the interim report. Data on total supply, domestic and import supplies, value added and complimentary imports were collected and analysed. One important variable for which no data was presented is on the prices of manufactures. The FOS has information on the prices of selected manufactured products and relevant weights for specific income groups in their Consumer Surveys. Also the consultant had data on imports of selected products in volume as obtained from Nigeria's Trade Summary, as presented in table A 4.8. If these series are used with corresponding value data a crude "average price" of these 20 imported manufactured products can be obtained for the eight-year period. Also the Central Bank data on the index of Industrial Production is available for more years than was used in the study. The population figure used in computing the apparent per capita consumption of 20 selected products in 1981-88 should be explained in a footnote below the table. (See table A 4.10). Similar comments are relevant to the per capita consumption Data for selected products 1981 - 85 p. 4.33 Table 4.14. The caption "% Import Dependence for 20 selected Products (As measured by Imports/ Total Supply)" in table A4.11 is misleading. A less controversial and more appropriate caption would be "share of imports in total supply for 20 selected products".

IV. Amount and Suitability of Non-Statistical Information

The conclusions drawn from the analysis reported are satisfactory and it should be possible to draw more useful conclusions about the time series if the format suggested in section B of this review is adopted. Information on government's fiscal and industrial policies and incentives have been satisfactorily used in explaining the observed pattern of industrial development in the five sub-periods studied.

V. Evaluation of the Promise of Further Work Envisaged

As this review shows, only two of the six aspects of the TOR have been covered in this study. Most of the remaining four aspects are to be undertaken after the survey. Since the survey is based on a sample, some aspects of the fourth TOR especially 4(a) and (b) on 20-year forecasts of industrial production, domestic and export demand for industrial products can proceed while survey data are being processed since the econometric model of the industrial sector envisaged by the consultant will be based on historical data already collected. Given the historical data at their disposal, the amount of work done, and proposed the consultant seems to be set on a path of undertaking a thorough job.

VI. Overall Evaluation:

The consultant has done a great deal of work on this project in line with the TOR. Aspects of the TOR on the analysis of historical data should be cleared with the National Planning Commission (NPC) and

corrected if necessary in subsequent report. Efforts made so far to collect sample data without using the FOS are commendable. We recommend that the report be accepted.

Review of Draft Final Report

I Scope and Work Content Envisaged

(i) The focus of the study is on domestic production, consumption, hence import and export of manufactured goods and on the market and policy environments in which these activities have taken place and on those in which they should take place. Three conventional stratification factors are recognized as very important in respect of this sector: geographical location, size of producing units and basic economic category of the manufactured product; they facilitate the study of the impacts of industrial growth on the magnitude and distribution of manufacturing employment, the balance between the production of consumer, intermediate and capital goods and the establishment of different-sized industries.

(ii) Emphasis is placed on the distinction between small-medium and large establishments because abundant statistical information are usually available on the latter while little is known about the input-output structure of the former.

(iii) The consultant is expected to use both the neoclassical and input-output approaches and develop clearly defined methodologies that may be required both in studying the relationships between the key variables, projecting them and in bridging the gaps in available information.

II. Detailed Terms of Reference

TOR (1)

Expected implementation

(1) Here the consultant is supposed to undertake an analysis of the changes in indicators such as manufacturing value added, employment, prices and factor intensity using nine manufacturing sub-sectors. He is supposed to relate the observed changes to prices, fiscal and budgetary policies and the provision of infrastructural facilities.

(ii) It is also envisaged that this review will be complemented by a study of the changes in imports and exports and consumption of manufactured goods as they may be related to fiscal and government's industrial policies.

What was Implemented and Suggestion for Further Work.

(1) Instead of basing the review on data at 5 year intervals as requested i.e. on 1955, 1960, 1965, 1970, 1975 and 1980, the consultant segregated the period into five 5-year periods 1955-59, 1960-64, 1965-69, 1970-74 and 1975-80 using annual time series. Consequently he could not present the anticipated analysis of the trend in the key indicators in the manufacturing sector in the period 1985-80.

(ii) Attention was paid to the required distinction between the observed changes that can be attributed to past government policies especially monetary, fiscal, budgetary, institutional and infrastructural provisions. The consultant provided a comprehensive review of these past policies, incentives and budgetary allocations.

(iii) The consultant succeeded in obtaining available relevant information on manufacturing especially from FOS and CBN sources but he did not keep to the TOR in presenting them.

(a) He did not present the data consistently in the nine sub-divisions as required except in tables 3.5 and 3.9. this was not done in tables 3.14, 3.21 and 3.25.

(b) On imports of manufactured goods in respect of which almost information are available in SITC categories only two tables were provided i.e. 3.10 on cement and table 3.23 on 13 commodities for 1973.

(c) On categorization of manufactured goods into economic groups of capital, intermediate consumer, available information were not properly assembled to facilitate compensation.

(iv) The consultant should state data problems where they exist so as to justify the resort to alternative sources which differ in presentation.

(v) The consultant's conclusion on pages 3.109-3.111 compensates but not fully for some of the pitfalls referred to above. He made very good use of previous studies in all fifteen studies referred to in the review of past performance in this sector.

TOR (2)Expected Implementation

Here the consultant is expected to undertake a more detailed examination of the trends in major indicators of manufacturing growth and the explanatory factors using a less aggregative set of time series than in TOR (1). He is also expected to analyse the effects of government short-term stabilization policy.

What was Implemented and Suggestions for Further Work

The consultant presented annual reviews in which he studied changes in magnitudes of key indicators i.e. manufacturing production, import content of manufacturing, and others paying attention to the impacts of industrial policy environment especially inflow of foreign investment, import, price and incomes policies. In addition to the annual analysis, the period was disaggregated into pre 1981 period of oil boom and rapid growth of manufacturing, the 1981-85 period of depression and the post 1986 period of structural adjustment. Attention was focused only on annual percentage changes in the magnitudes of selected indicators. The consultant did not estimate the rates of growths of the selected indicators for subsets of and for the entire set of time series data. Such rates of growth (or decline) should lead to interesting comparisons in respect of the indicators.

The consultant collected a reasonably copious amount of relevant data up to the latest available period at the time of presenting their interim report (the first two pages of table A4-12 were wrongly labelled as A4.11 contd.) These have not been fully utilised as the trends in measures of average productivity, average wage and

crude rates of return which can be computed and studied for the four- year period were ignored. As rates or proportions, time series projections of these measures can be compared with estimates obtained from 1988 sample data to arrive at interesting conclusions.

TOR (3)

Expected implementation

The consultant is expected to conduct a nationwide survey of manufacturing establishment using FOS methodology and possibly its outfit. He is to ensure that the sample is representative of production units in Nigeria with respect to location, size and range of products. Information collected are expected to be used in computing on input-output table for the manufacturing sector. They are expected to use econometric techniques to study cost, production supply and demand relation, obtain estimates of relevant parameters and also undertake comparative analysis of supply/demand balance using suitable African countries.

What was Implemented and Suggestion for Further Work

- (i) Using his own outfit for reasons explained in the text, the consultants conducted a survey of manufacturing establishments and obtained useable responses from 157 out of the 745 firms that were in the sample spread over 16 groups of manufacturing establishments. A well planned selection procedure aimed at satisfying the TOR criteria for representativeness was implemented. In spite of the poor response rate of less than 21 percent the consultant obtained useable data for the period 1985-88 in respect of each of the 157 respondents. The effort made to produce homogeneous four-year time series data of the 157 of the establishments in commendable. More so some of their findings compared very well with those based on other similar data.
- (ii) Instead of separating his sample data into small-medium and large as requested in the TOR the consultant proceeded to use them as one single sample, thus concealing any information contained in their data on each of these two sizes of manufacturing establishments.
- (iii) The consultant's findings on capacity utilisation and employment in manufacturing are realistic so also were their findings on falling import-dependence in 1988 compared to 1987.

For no obvious reasons the consultant, failed to fully exploit their antique time series data. He concentrated mainly on 1988 when most estimates could have been studied comparatively with 198-87 as was done in table 5.9 for employment trends in manufacturing. Also the consultant made no effort to search for raising factors to blow up some of their sample estimates and consequently update manufacturing data from 1984 to 1988.

- (iv) The consultant has come out with some useful findings on Nigeria's export potential vis a vis one African and two European Countries. Ghana should have been included with Cote D'ivoire since Nigeria exports more to Ghana than to any other African country. An interesting and courageous use made of their survey data for 1988 is the compilation of a partial 30 x 16 input-output table where the rectangular flow matrix consists of the purchases of the 16 manufacturing sub-sectors from the 16 manufacturing sub-sectors and the 14 non-manufacturing sectors as well as the sales of the 30 sectors and sub-sectors to the 16 manufacturing sub-sectors. The consultant should be commended for this magnificent effort. However the reliability of the consultant's findings on inter-sectoral linkages and sectoral dependence on imports depends on the representativeness of the sample which he defended elaborately earlier in the last chapter. Also although the

consultant gave some warnings on the limit anticus of the I-0 study in sector 6.5 on page 6.17 of chapter 6 (whose sub-sectors he failed to number) he has left the following things undone:

- (a) He did not compare the coefficients with those obtained in earlier I-0 studies which they referred to in their review of literature on I-0 studies.
- (b) He failed to examine the stability of their I-0 coefficients by compiling the table for another period even though the data set was available.

TOR (4)

Expected Implementation

What is expected here is the use of econometric single equation techniques to forecast industrial production assuming current market conditions and to repeat the exercise assuming different scenarios to be supplied by the plan coordinator. Projections and product balance sheets for selected products are to be made available for 20 years and Nigerian experience in expected to be compared with those of countries at similar stage of development.

What was Implemented and Suggestions for Further Work

- (i) The introduction to chapter 7 is missing. Also pages 7.11 - 7.14 should follow page 7.22 so that international comparison comes last in that chapter.
- (ii) The consultant used the stepwise regression technique to select the best out of several single-equation estimates of demand and supply which he used in making projections of these variables and demand/supply balance for 20 years (1990 - 2010). The consultant appears to have considered too many scenarios with a tendency for some of their comparisons to be inconclusive

TOR (5)

Expected Implementation

It is expected that the results obtained under TOR(3) (a) - (d) would call for specific government policies. On the basis of these, findings in other parts of the study and his expert knowledge for the characteristics of each manufacturing sub-sector as well a the experience of other countries the consultant is expected to recommend future development priorities in the sector.

What was Implemented and Suggestions for Further Work.

TOR (5) calls for most of the findings in earlier sections about product balance. These are to be incorporated into available information on the growth of industry here and in selected countries to formulate plans of action in respect of each sector.

TOR (6)

Expected Implementation

Here the consultant is expected to round up his findings with emphasis on the forces which might lead to improvements in or worsen the imbalances observed in TOR (4).

What was Implemented and Suggestions for Further Work

The various policy recommendations in all the sections of the study are collated here. It is absolutely essential to ensure that only issues in respect of which recommendations have been made in the study are covered.

Overall Evaluation and Recommendation

(i) The study is commendable with respect to the efforts put into the data collection especially the execution of the sample survey of manufacturing and the effort invested in the compilation and use of the partial I-0 table. The main weakness of the study is in leaving out comparative studies for the two sizes of manufacturing establishments- small/medium and large. Also he should have attempted a second I-0 table for another year to be able to examine the stability of the coefficients.

(ii) A considerably large amount of useful statistical data both secondary, sample and derived was generated and put together in an separate attachment. This should be a useful source document for the plan coordinator. This appendix should be rearranged and made more compact when the final report is being prepared.

(iii) We recommend the payment of the consultant to enable him make necessary amendments before submitting the final report.

SECTOR: Non-Oil Mineral Resources

CONSULTANT: Skoup & Co. LTD.

**REVIEWER: Wale Ogunkola
Akin Iwayemi
Deola Adenikinju**

Review of Draft Final Report

Scope and Work Content Envisaged

One of the primary objectives of this study was to provide an opportunity for a comprehensive survey of the country's mineral wealth, with particular attention being given to the production potentials to meet domestic demands as well as export demand. With the discovery of oil and its dominant role in the economy, there has been a growing tendency to neglect the potentials which exist in exploiting the country's vast wealth of mineral resources other than petroleum. As the country seeks to diversify its economic base away from the preponderant reliance on oil, there is the need, within the context of a 15 - 20 year perspective plan, for a full appraisal of what the full complement of the country's mineral wealth consist of (excluding oil) and what potentials exists for exploiting them towards the promotion of growth and development.

What was Implemented and Suggestions for Further Work:

The consultant's treatment of the various mineral resources or scope and content of coverage was guided by the existing amount of information available on each mineral resource rather than the degree of importance attached to each [p. 16]. This criterion for determining scope and content of coverage was most limiting. The objective of the study was not to simply collate existing information from secondary sources but to provide new information to validate, complement or substitute for existing information. It is expected that this study would go beyond purely economic analyses and documentation of exiting activities relating to mineral production, to take advantage of geological and geophysical surveys and other related expert knowledge and information to undertake a comprehensive documentation of what is feasible by way of mineral exploitation within the planning horizon of 15-20 years in relation to what exists now as well as mineral production activities in the last 30-40 years.

II. Detailed Terms of Reference

"To conduct a study on the mineral resources of the country, which will serve as background for the 15 - 20 year Perspective Plan of Nigeria, and will consist of assembling exiting data and obtaining additional data on the various mineral resources, conducting various analyses, performing projections with 1986 as the base year, and suggesting policies, and programmes."

TOR(1).

"Review the past performance ... in the country."

Expected Implementation

- (i) What is expected here is a detailed cross sectional over view at five year intervals, of the major production activities in this sector between 1955 - 1986, with attention being given to key input - output transaction flows and their determinants such as, employment, volume and value of output and how these have been influenced by prices or purely market forces and/or specific government policies aimed at influencing production and related activities in this sector include import and export activities.
- (ii) Particular attention was to be focussed on analysis of reserves.

What was Implemented and Suggestions for Further Work

This was executed very adequately, especially where existing information from secondary sources provided ample material for analysis. This easily explains why for example review of activities in the coal industry received quite an elaborate proportionate, attention [pp. 18 - 42] while activities in Lignite, Tar Sands/Bitumen industries were treated in a few pages [pp.43-49].

TOR(2).

"Review in more detail... policy."

Expected Implementation:

From 1980 upwards to the current period (as suggested at the May 1990 workshop) a detailed time series based analysis following the same structure as under TOR (1) is expected.

What was implemented and suggestions for further work:

See comments under TOR(1)

TOR(3).

"Conduct a survey... regarding oil."

Expected Implementation:

- (i) All mineral mining activities are expected to be categorised into two (originally three before the exclusion of Oil at the May 1990 Workshop) broad categories of (a) small-medium non-oil producing units (b) large non-oil producing units based on a representative sample survey of mineral producing units.
- (ii) Every other aspect of the given TOR is self-explanatory.

What was Implemented and Suggestions for Further Work:

(i). A self-limiting attitude was adopted towards the survey such that it was not expected to yield any new meaningful and useful set of information. The consultant's preference for relying on information available from secondary sources perhaps led to less emphasis resource time and effort being devoted to the survey. There is not much evidence that the survey yielded much of new additional useful information that is not already available in existing secondary sources. It would be necessary to rectify this as much as possible before the presentation of the final report. This is the most valuable contribution or inputs expected from these

sectoral studies, and to which a greater proportion of resource time and effort ought to be devoted by the consultant.

(ii). It was also expected that from the sample survey data it would be possible to obtain population estimates for key variables. Given the poor sample base, this objective may be difficult to realise.

(iii). Not much was done by way of the analysis required under TOR 3(b). The survey was meant to provide the necessary inputs for this analysis but the consultant relied on information from existing secondary sources [p. 203] which yielded very little [pp. 203 - 216].

The need to see what efforts can be put into deriving maximum information from the sample survey cannot be overemphasized. This is the heart of the study, and neglecting it limits virtually all other aspects of the study. For example break-even analysis was only attempted for coal (for which there is already much documentation by way of statistical data and information available in secondary sources), [p. 216]. It would have been much useful if the survey attempted obtaining information from primary sources in respect of the other minerals.

(iv). Again, the estimation of the I-0 table had to be severely curtailed for reason of lack of data [p. 218]. Only five minerals coal, lead/zinc, limestone, marble and tin were included in the table and even for these ones value added could not be dis-aggregated into their components other than for coal [p. 218]. For this exercise an aggregation into three categories of small-medium non-oil; large non-oil would have sufficed. There was no way this could be done meaningfully if all the information that was obtainable from secondary and primary sources (the survey) was limited to coal only.

(v). What was intended in the I-0 analysis was not a self-contained analysis of inter-sectoral flows, but flows within the context of national income accounting sectoring (on which information was supplied to all consultants). The requirement was that the non-oil mineral sector be disaggregated into two vectors in analysing the I - 0 transaction flows, between these two vectors vis-a-vis other sectors in the economy. Again a detailed survey would have yielded this kind information, on what the sector receives as inputs from other sectors and what it gives as inputs into other sectors.

TOR(4).

"Based on the preceding,... preceding information."

Expected Implementation:

The TOR is self-explanatory.

What was Implemented and Suggestions for Further Work:

(i) Single equation models were specified and estimated as basis for projections. This was quite adequate. The poor fit of most of the models cannot but be linked with the poor data base from which they were estimated [p. 224]. Again here the sample survey should have been aimed at filling some of these data gaps.

(ii) No attempt was made to utilise the estimated regressions to carry out projections. It would be necessary to provide at least base line 15-20 year ex-ante projections as required in the TOR. The scenario or alternative projections can also be attempted based on the consultant's own assumptions, as long as these

are stated. These can be refined later on in conjunction with the project coordinator within the context of plan formulation, when the consultant's assumptions may have to be modified or expanded.

TOR(5).

"Suggest, if relevant,... of part 3."

Expected Implementation:

The TOR is self-explanatory.

What was Implemented and Suggestion for Further Work:

This was not attempted. It would have been necessary to make some suggestions even if these were to be based on hypothetical scenarios based on the consultant's own expert knowledge of the sector, in the absence of actual data to work with.

TOR(6).

"Analyze ...expenditures involved."

Expected Implementation:

The TOR is self-explanatory.

What was Implemented and Suggestions for Further work:

(i) There was an excellent presentation on policy recommendations. It will however be necessary to formulate these as concrete policy programmes implementable in a planning context and with the specific planning horizon of the perspective plan in mind.

(ii) The policy recommendations would have to be linked with the projections (when these are undertaken). as targets and the policies as instruments to realise them.

III. Overall Evaluation and Recommendation

(i). The study has accomplished quite a lot by way of making very competent use of available information from existing secondary sources.

(ii). Accomplishment by way of providing new statistical and other non-existent or non-documented information has not been much. The self-limiting attitude towards the survey which was perhaps viewed by the consultant as a supplementary source of information to already available secondary sources resulted in very little being accomplished by way of generating new statistical data and other information. It should be quite possible to reverse this role and view the survey as the primary source of information. This would considerably improve the quantity and quality of information made available in the report as possible inputs into the overall plan.

(iii). It is quite possible that the survey was not given the place of prominence it deserves, due to budgeting problems, in which case it would help and we would strongly recommend that the next installment be made available to enable the consultant, put in more effort into the generation of primary data.

(iv) It would be quite helpful if in the Final Report and quite unlike in the present draft final report, there are fewer instances when the "non-availability of data" would need to be invoked as reason for abandoning any particular aspect of project implementation as outlined in the given TOR. In our view a painstaking attention to own survey would make the difference. This was what the commissioning of the various studies was primarily about - to tackle the problem of non-availability of adequate data as may be required for the plan, and which are not available in existing sources at all or in their required up-to-date form.

Review of Final Report

I. Scope and Work Content Envisaged

As stated in the Review of Draft Final Report.

What was Implemented and Suggestion for Further Work.

The consultant's treatment of the various mineral resources was still guided by the existing amount of information available on each mineral resources. This posture was according to the Report pp. 13-15, due to different problems encountered with mining companies. As already pointed out the objective of the study was not to collate existing information from secondary sources but to provide new information to improve existing information.

It is expected, therefore, that the study should have taken a decision to clean survey results based on their understanding of the technology of the industry. Although there are a lot of improvement over the draft final report, where some survey results were utilised in the final draft, there is still room for improvement. (We shall comment on this further in section III).

II. Detailed Terms of Reference

TOR(1) and TOR(2) were adequately executed as pointed out in the review of the draft final report of the sector.

TOR(3)

Expected Implementation

The consultant did not provide any new meaningful and useful set of information. It seems that the consultant did not pay adequate attention to the usefulness of the survey. We raised these and other problems in the previous review of the draft final report. It is surprising little was done to make the survey result meaningful and useable. The survey was supposed to be the most valuable contribution expected from these sectoral studies as anybody can provide published information. According TOR(b), there was to be a break-even cost analysis, to determine the effects of product and input prices, fixed costs and scale of operation on profitability of each enterprise. This was not properly carried out, perhaps, because the consultant did not use survey result.

