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イバダン大学電子顕微鏡
技術協力総合報告書

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昭和47年7月

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イバダン大学・電子顕微鏡技術協力

総合報告書 伊藤隆造

現地配属機関：ナイジェリア連邦共和国，西部州，
イバダン，イバダン大学解剖学科

赴任期間：昭和46年4月10日より

昭和47年4月9日

本協力事業は1966年に電子顕微鏡及び関連諸機材供与，カウンターパートの日本での訓練及び派遣専門家による現地技術指導として始められた。本事業の発足及び実施にあたっては，具体的現地事情の把握，派遣専門家の人選，カウンターパートの日本での訓練等，自らイバダン大学で1963年から一年間，解剖学科の交換教授として指導された東京医科歯科大学の新島進夫教授に負う所大である。カウンターパートとしては，本事業の現地協力受入調であるイバダン大学解剖学科の主任教授に昇任したばかりの新進グロ教授及び同学科の若い技術員オヤレクア氏が，1966年8月からグロ教授は3ヶ月，オヤレクア氏は6ヶ月間の訓練を東京医科歯科大学及び電子顕微鏡を納入した日立製作所的那加工場において受けた。一方，1966年9月より千葉大学の永野俊雄教授が，1968年3月より当時東京医科歯科大学の渡辺強三氏（現在，鶴見女子大教授），そして1969年5月より同じく東京医科歯科大学の天川孝則氏が各一年間ずつイバダン大学において現地指導にあたった。永野・渡辺両氏は，希望により現地滞在費及び往復旅費をイバダン大学が負担し，形の上では新島教授及び1967年一年間解剖学を指導された窪田金次郎教授と同じく同大学の交換教授として赴任されたが，現地での待遇や業務内容は，後続の天川専門家と同様であった由である。Medical Science 又はMedical Laboratory Technologyの理学士号学位コースの学生若干名及び少数の研修希望者に対する指導と，配属先解剖学科の研究プロジェクトの分担が主な業務であった。ナイジェリアのみならず，西アフリカ全域で最初の電子顕微鏡研究室として，イバダン大学内はもとより少数乍らも他大学や他国からの利用者が迎えて，医学や自然科学の教育及び研究にユニークな貢献をしてきているが，配属先の人材不足が最大の原因と思われるが，所謂，一人前の電子顕微鏡学者として自らの研究に使いこなし且つ後進の技術指導を行うことの出来る人材を育てることが出来なかったので，本協力事業の継続として専門家の追加派遣要請となった。

○相手国受入体制

本事業の受入機関であるイバダン大学は、現在学生数約4,000名、教職員(Junior Workersを除いて)約800人、今年度の経常予算が約44億円というナイジェリア最大の総合大学でラゴス大学と共に唯二つの国立(連邦立)大学である。大学本校は、黒人の作った世界最大の都市(人口約130万人)イバダンの北外れにあり、約十平方キロメートルの敷地に文、理、医、農、社会、教育の6学部計38学科、図書館、5研究所、それに書店、学生寮(ほぼ全寮制)教職員住宅、小、中学校、教会、ゲストハウスまで備えた総合大学である。最初は英国の植民地時代にロンドン大学のカレッジとして完結したが、1962年に独立し、施設はもとより教育陣容も研究陣容も国際的に遜色ない充実した大学として独立後日も没いナイジェリアは勿論、ブラックアフリカ全体で人材養成、学術振興の両面で指導的役割を果たしてきている(参考1,2)。医学部19学科4研究部のうち解剖学科、生理学科、生化学科、薬学科、看護学科及び小児医学研は本校にあり、他は、本校から約6kmにあるベッド数507、英国医療審議会によって教育病院として認定を受けた総合病院を作っている(表1)。医学教育の制度組織は英国のそれと全く同様であり、医進課程を修了したか、生物学、化学、物理学の上級試験を好成績でパスした学生を受入れ、前臨床期コース5学期、臨床期コース10学期(一年三学期制)を修了した学生に医学士号(M.B.又はB.Surg)を与える。解剖学科の1970/71年度の教育対象は、医学科一年生116名、二年生128名、看護学科24名、及び理学療法学科一年生5名で、加えてMedical Laboratory Technologyの理学士号コースの学生一人であった。後者のコースには1971/72年度にもう一人加わり、電子顕微鏡学を履習したが、それ以外の学生は指導対象とはならなかった。指導対象として予定していたMedical Scienceの理学士号コースの学生は、比較的最近London Hospital Medical Collegeで始められた試みを導入したもので、前臨床期コースを修了し、その試験を優秀な成績でパスした学生が希望により前臨床期基礎医学科の一つ又は二つを専攻して一年間の研究指導を受け、試験に合格すれば理学士号(Medical Science)を取得出来るというコースの学生であり、医学部を一年余計かけて卒業する代りに二つ学士号を取得でき卒業進路に有利ということである。又、大学側としても優秀な学生に早くから研究経験を持たせることにより医学教育及び医学研究の後継者の養成に役立つという利点があり、実際、このコースの卒業生が、何人かイバダン大学のみならず他大学の医学部の講師等として活躍を始めていた。ところが、筆者が赴任した4月は、このコースの1970/71年度の学生は修了した直後であり、1971/72年度生は、グリロ教授のイフエ大学移転の為、解剖学科には、入学させなかったため、筆者の指導対象の学生は上記のMedical Laboratory Technologyの学生計2名のみであった。

Table 1. University College Hospital (University of Ibadan Teaching Hospital)

<u>Staffs in U.C.H. IBADAN 1970</u>			
Doctors		Blood Donor Panel	4
Consultants	66	Physiotherapists	12
Registrars etc.	126	Occupational Therapists	3
Nurses	279	Med.Social Service Workers	5
(Student nurses	380)	Administrative	52
(Pupil midwives	30)	Engineers	15
Pharmacists	19	Clerks etc.	256
Radiographers	15	Other junior workers	1181
Labo.Technologists	51		
(Student Lab. Tech	40)		
<u>Beds in U.C.H.</u>			
Dept.Medicine	143	Social Care	19
Dept.Surgery	130	Dept.Pediatrics	72
Dept.Ophthalmology	14	Medical Record Unit	4
Dept.Gynaecology	44	Dept.Psychiatrics	9
Maternity ward	72		
<u>U.C.H. Products 1970</u>			
Medical students	51		
nurses	79 + 158 (other hospitals trained)		
Midwiver	22 + 155 (" " ")		

解剖学科の教職員は、グリロ主任教授の他に Senior Lecturer 4名, Lecturer 3名, Senior technician 3名, 研究助手 2名, 秘書 2名, Junior technician 5名, その他 Junior Worker 6名という構成であったが, Senior Lecturer が 2名空席, Lecturer は 3名とも海外留学, 研究助手も 2名とも筆者赴任後間もなく外国留学してしまい, 教官又は研究者層は, 技術指導対象となり得なかった。尚, 一般に電子顕微鏡学は組織学の一分野として教育されるが, イバダン大学では生理学科の助教授が組織学教育を負担しており, しかも両学科の間では交流が殆んどなかった。又, 他学科の教官, 研究者層及び技術員層についても筆者赴任に伴う研修生募集は行なわれなかった為, 筆者のもとで技術指導を受けた人達は凡てグリロ教授の知己又はその関係者だけであった。

電子顕微鏡研究室として特別設計した 5小室は, 空調装置も完備しないうちの状態に整備されているといえるが, 電子顕微鏡用一般実験室, 組織化学実験室, 組織学実験室及び共用暗室の機材は不十分で, 業務遂行の障害となった。同学科には, 各教官の実験研究室や生化学実験室等もあり, 高価な計機・器具類を備えていたが, 管理の杜撰さから故障しているものが多く, 又, 使用されずに放置されているものも多数みられた。

専門家の待遇は, Visiting Senior Lecturer として同大学の Academic Staffの待遇を受けた。即ち有料宿舍の提供, 専門家及び家族の無料医療サービス, 図書館利用等である。連邦政府としては, 引越荷物及び乗用車の輸入関税免除以外, 技術協力に関して直接的協力は何等なかった。

○業務内容及びその成果

既にふれた如く、筆者の実際に行なった業務は、派遣要請の理由及び指導計画書の内容とは多少異なったものになり、指導を兼ねて電子顕微鏡研究室の機器の管理・保守、少数の学生及びその他の研修希望者に対する個別指導及び配属先の研究プロジェクトの分担の三つとなった。

1. 電子顕微鏡研究室機器の保守

筆者赴任に先立って報告されていた電子顕微鏡カメラ室の空気洩れは、着任直前に修理されており、又、真空蒸着装置の不調も携行した部品の交換により修理できた。そして一年間滞在期間中、幸運にも重大故障は一度も発生しなかった。真空蒸着装置の真空ゴム管の疲労による不調は、解決まで大分無駄をしたが、副木をそえてゴム管の圧平を防ぐことにより回復した。

後述の如く、電子顕微鏡の保守技術まで研修したのは僅か3～4人であったが、定期的点検、清掃及び小事故の対策を見学及び補助をさせて訓練した。最大のトラブルは冷却水の断水で、給水時間中に貯える筈の貯水槽に水圧が低くて満せないため、特に乾期11月より5月には、電子顕微鏡も真空蒸着装置も運転出来ない時間が多かった。新しく給水蛇口を数設したりして切抜けたが、抜本的対策が必要である。

電子顕微鏡及び真空蒸着装置の使用説明書が不十分だったので、改訂又は増補した。これにより操作法の訓練をした。

2. 研修者の個別指導

一年間任期中に研修を希望して又は電子顕微鏡の研究について指導助言を求めて筆者を訪れた人は下記の通りである。

Dr. Baxter-Grillo (Mrs.)	(Dept. Anatomy, Senior Lecturer)
Dr. Desaln	(" ")
Dr. Lipede	(" , Lecturer, 7月から暫く)
Mr. Mekoma	(" , Technician)
Mr. Omokanjuola	(" ")
Mr. Caxton-Martin	(" , Research Assistant)
Mr. Ogunaike	(" ")
Mr. Om'Iniabohs	(B.Sc., Med. Lab. Techの学生, 6月卒業)
Mr. Enenebeaku	(" " 来年卒業予定)
Mr. Gonihi	(医学科三年生, B.Sc., Med. Sci.)
Prof. Fabiyi	(Virus Res. Lab., Univ. College Hospital. Ibadan)
Dr. Smith	(Dept. Pathology, UCH, Lecturer)
Dr. Ejike	(Dept. Zoology, 理学部, Lecturer)
Dr. Gaafar	(Dept. Ear, Nose and Throat, UCH, Sen. House Officer)
Prof. Ngu	(Dept. Surgery, UCH)
Dr. Amakiri	(Dept. Vet. Anatomy & Physiol., 農学部, Lecturer)
Dr. (Mrs.) Imohiosun	(Dept. Medical Microbiology, UCH, Research Fellow)
Dr. Soyinka	(Dept. Medicine, UCH, Lecturer)
Dr. Osunkoya	(Dept. Pathology, UCH, Associate Prof.)
Mr. Nkpong	(Dept. Surgery, UCH, Technician)
Prof. Ahmed	(Dept. Anatomy, Lagos Univ.)
Prof. Oodare	(Dept. Surgery, LUTH (ラゴス大教養病院))
益敷名。	

このうち大多数は、固定・脱水・包埋・ガラスナイフ作製、ミクロトーム使用法・超薄切片作製、染色・カーボン蒸着・電子顕微鏡操作法・暗室手技・結果判読及び発表準備等のいわゆる透過型電子顕微鏡技術の全部又は一部の説明及び実演を見学し、実習を2〜3回試みるだけで終り、その練習を続けて、不十分乍らも超薄切片が作製できるようになったものが6〜7名、全過程を一応練習し独立して行えるようになったのは3名にすぎなかった。カウンターパートたる Mr. Oyarekua は、これ等基礎技術は一応マスターしていたので、ネガチフ染色法、電顕的組織化学手技等を指導した。もう一人のカウンターパート、グリロ教授は技術的には未熟であったが、研修意欲皆無だったので指導対象とはならなかったが、解剖学科の主任教授として細胞学、電子顕微鏡学を講義し又研究を行っているわけで、印象からいうとオヤレクア氏と組んではじめていわゆる一人前の電顕学者となる様であった。指導計画書に盛られた電顕的組織化学の指導は、二人の学生及び三人の実験助手にその基礎的手技を指導することとなり、オートラジオグラフィは、放射性物質の入手が順調にゆかず指導することはできなかった。

3. 研究プロジェクト分担

前述の如く、赴任時には、指導対象が少人数しかおらず、受入側責任者グリロ教授より要請された業務の殆んどは、同教授自身の行っている多数の研究プロジェクトの電顕的観察の分担であった。その内容は、

- 各種脊椎動物の脳内内分泌細胞の微細構造的な研究。
- 新しい基質 (Endoxan) によるフォスフォアミダーゼ組織化学の検討。
- 鶏胚小腸上皮の顆粒細胞の電顕的組織化学的研究。
- アフリカオオカタツムリ *Achatina fullica* の腸管上皮細胞の観察。
- モコラビールス IbAn 27377 の増殖像の観察。
- アフリカサワガニ *Sndanonantes africanus* の中・後腸接統部真皮隙の電顕的観察。

等であり、このうち数編は学術誌に近く投稿される予定である。

4. その他の業務として、生物学及び細胞学の講義の一部として、医学部や理学部の学生に各々約一時間位のデモンストレーションを行なったり、多数のグリロ教授訪問客の中で見学を希望する人がよくあり、人により10分から小1時間もかけて見学をするのを説明させられた。この訪問客は、政府の高官から国内外の研究者や大学関係者等が多かった。又、グリロ教授の医学部大

学院向けの細胞学の講義を三回にわたり代講し、電子顕微鏡学を講義した。要請されて、ラゴス出張の序に、ラゴス大学教育病院に立寄り、1971年末に購入据付けられたナイジェリア2台目の電子顕微鏡を調整し、担当の技術員に若干の技術指導を行なった。任期末に、イバダン大学医学部長宛にイバダン大学に供与された電子顕微鏡の利用についてアドバイス報告書を提出した。(参考文献 3)

○ イバダン大学電子顕微鏡技術協力プロジェクト(1966-1972)の成果

受入側からみた総括は、この3月に既にグリロ教授により報告(参考文献4, 5)されており、又、前任者の報告を夫々参照していたとききたいが、最後の派遣専門家として総括してみたい。

1966年～67年にイバダン大学解剖学科に電子顕微鏡室が完成した時は全西アフリカで最初の電子顕微鏡として注目を浴びた。日本の電子顕微鏡は、既に世界的にその名声を確立しており、一方受入側のイバダン大学は、ブラックアフリカをリードする地位を占めていたから、時宜にかなった好企画として、好評を博した。その後5年、同研究室は更に充実し、Medical Scienceの理学士号コースという新しいコースを実質的に充実させることに貢献し、電子顕微鏡技術研修の場としてまた電子顕微鏡的研究のできる唯一の研究室として医学そして生物学的研究及び教育に効果をあげ、更に日・ナ両国の友好に大きく貢献してきたといえよう。

技術指導の面では、カウンターパートとして訓練を受けたグリロ教授及びオヤレクア氏がとにかく二人合せれば一人前の電子顕微鏡学者として後継者の指導を行えるレベルにまで成長した。計四人(4年間)の派遣専門家の指導を受けたB.Sc.(Medical Science)及びB.Sc.(Med. Laboratory Technol)コースの学生は夫々30名及び4名になるが、これにグリロ教授・オヤレクア氏コンビの指導を受けた1970/71年度のB.Sc.(Med. Sci.)の学生12名を加え、計46名のうち、基礎技術全過程を充分研修し、補助なしに行える迄研修できたのは、エネネベアク氏を入れて5名になる。他に超薄切片作製までは一応形だけでも独りで行なえるが、電顕の操作は危くて独りで使わせるわけにはいかないというレベルに5名到達した。

イバダン大学解剖学科に日本より供与された電子顕微鏡が入ったニュースは、一般人は別として少なくとも医学界、高等教育関係には広く知られた様子で、多数の利用希望者が訪れた。然し、利用者として受入れられる為の条件、即ち試料調整は自身で技術を習得し行なわなければならないという条件を理解し且つその困難を乗り越えることの出来た人は極く少数で、大半は、始めから利用を諦めるか超薄切片作製法の研修途中で放棄してしまった。結局5年間に試料作製が何とか出来るようになったのは6名か7名、全過程を補助なしで行えるようになったのは2名に過ぎない。

技術員クラスでは、配属先解剖学科の技術員が一人は、電子顕微鏡の操作、保守技術を、他の一人が超薄切片法をどうやらマスターできたのみであった。この技術員層は研修希望者の数も非常に少なかった。

以上をまとめると、本技術協力プロジェクトにより7人のカウンターパートが、一人前の電子顕微鏡学者として出発できる程度まで研修を終え、オヤレクア氏を入れ2名が技術員として必要な技術を身につけたことになる。然しこの大多数は、その経験技術をどの程度活用できるかは未知数の状態におかれており、活用して成果をあげているのは、グリロ教授とオヤレクア氏のコンビそしてUCH病理学科のDr. Smithだけである。但し、B.Sc. (Med. Lab. Tech.) の卒業生は3名とも英国へ留学し、電子顕微鏡学の研修を続けているとのことであるから、帰国途には一人前の電子顕微鏡学者になってくるものと期待される。

4人の派遣専門家は皆、技術指導と同等又はそれ以上のエネルギーをグリロ教授の研究プロジェクトの分担に費したが、その成果は学術雑誌に投稿されたり学会へ発表されており、現在、投稿準備中のものも5～6編にのぼる。

もともと電子顕微鏡技術は臨床面へ直接応用されるよりは、研究や教育面に応用されるものであるので、上述の如き直接的成果を除くと相手国全般又はその医療分野で本協力事業がどのような効果をもったかを評価することは難しい。現在イバダン大学の総長代行エディントン教授（病理学）が、1、2年前までよく言っていたように、ナイジェリアの医学研究の現状では高価な電子顕微鏡を使わなくても行なえ、しかも緊急な研究課題が山積しているという見方がある一方、多数の電子顕微鏡利用希望者が特に医学、生物学系の各分野にわたり存在しており、近い将来に大学に一台ずつそして更に各学部一台という日が訪れることであろう。そうした動きにおいて、当該プロジェクトで経験を得た研修生の何人かが、応用面及び技術面で指導的役割を果たしていってくれるのではないだろうか。

◦ 本技術協力プロジェクトの問題点

本プロジェクトの目的は電子顕微鏡学という学術面でも鏡体製作面でも世界的にも一流の日本の技術を伝授することにより相手国の医学研究及び教育の向上に貢献し、ひいては医療水準全般の向上に協力することにあると思うが、この目的達成の為に二、三考慮されるべき問題点が明らかになってきたので、これを指摘検討し、今後の同様の技術協力プロジェクトの資としたい。

1. 筆者の不勉強の所為かとも思うが、本プロジェクトは発足当時から、その具体的内容、特に技術指導の受入体制及び将来計画についての充分な調査検討がなされてきていない感がある。こ

の為に特に筆者の場合、意気込んで赴任してみたら指導対象として予定していた B. Sc. (Med. Sci.) の学生が一人もいなかったという奇妙な経験をさせられた。

2. 1 と関連して、これも一つの立派な技術指導の方式とは思いますが、受入側の直接責任者グリロ教授は、研修希望者を広く募集して技術指導を行なうという直接的方法ではなく、B. Sc. (Med. Sci.) コースの学生という選ばれた優秀な学生の研究指導、同教授の遂行している研究プロジェクトの分担を通じて、電子顕微鏡学的研究の成果を通じて知識を広めることにより間接的にナイジェリア国内の医学研究レベルを高め、将来同技術の応用を志す層の拡大を狙っている様子であった。勿論、実際にはこれ以外にも研修希望者に対する個別指導も平行して行なわれたのであるが、問題点は、特にカウンターパート養成、技術の伝播を重視する本事業団のプロジェクトとしては直接的指導方法の方が、効率よくその目的を達成できたのではないだろうかという点にある。

3. 社会制度の殆んどを英国が持込み定着させた為と思うが、有能な研究者は、自らの手は汚さずに実験は殆んどすべて技術補佐員運に行なわせ、自らは思索に時間をかけるという伝統が強い。電子顕微鏡学は本来、技術的側面が大きいので、こういう英国的研究体制に慣れてきている研究者運には、自ら技術を習得しようとする人は少く、実際に時間とエネルギーを費して習得できたものは成果の項でもふれた如く、非常に少なかった。

4. 3にのべた実情に鑑み、教官研究層でなく、夫々の学科でこれらの教官の補佐をしている技術員層の訓練が、当然なされて然るべきであるが、グリロ教授によってなされたそのような勧告を理解し、技術員を研修に派遣する学科は残念乍ら一つもなかったし、又グリロ教授自身の補佐技術員運でさえも、一つには、他の実験遂行に忙しすぎ、また一つには研修意欲のなさから十分な研修は行なえなかった。

5. これも前述したが、優秀な人材に恵まれ、最も熱心な研修者を含む B. Sc. (Med. Sci.) の卒業生は、全員少なくとも3年間は臨床期教育を受け医師となってゆくわけで、このうち何人が、B. Sc. コース1年間の経験及び習得技術を活用し、更に後継者の指導にあたる道を選んでくるかは全く未知数である。一方、こういう観点からすれば最適のコースと思われる B. Sc. (Med. Lab. Tech.) の卒業生は4人も解剖学関係に就職したか又はする予定であるが、

才能的にも熱心さからも B. Sc. (Med. Sci.) コースの学生と比べ大分見劣りするのです。後継者の訓練が出来る程度まで電子顕微鏡学、技術をいつマスターできるか少々心許ない。

6. 電子顕微鏡の技術研修は、個別にしてもグループにしても基礎的技術の説明と実習で終わるわけではなく、その後個々の研修者の長時間の練習と経験を経て立ち立ちできるようになるのであるが、この個別練習過程及び立ち立ちした後も暫くは、技術的にも学問的にも十分な経験を持ち且つ活潑に学問的研究を行なっている電子顕微鏡学者が傍にいて指導助言を与えることが必要である。勿論このようなカウンターパートの養成を目標として技術指導が5年間続けられてきたのであるが、グリロ教授やその他の senior lecturer は、3の理由から技術習得には熱意を示さなかったし、若い lecturer 達は殆んど留学してしまい電子顕微鏡学者を志向する人材に恵まれなかった。この点に関しては、電子顕微鏡学者を採用するか又はそれを志向する若い解剖学者を採用するべく努力するよう医学部長への勧告(参考3)においてもふれた。

7. 利用希望者、研修希望者の研修中途脱落の大きな原因は、希望者達が研修を続けるための時間的余裕のない勤務状態におかれているということであった。参考迄にイバダン大学教育科血液学学科ではWHOの主催で毎年3ヶ月位の免疫学実験法特別コースを開き、着実に成果を挙げていたが、その成功の理由の一つは研修生は医学研究生活を始めたばかりの若手研究者を対象を絞り、このコースの研修参加を許可されたものはその期間中一切の業務から解放され研修に専念することが出来るというシステムにあると思われる。

8. 超薄切片法をマスターした技術員と超薄ミクロームがあれば、利用できる研究者が多数いることからみて、技術員を対象とした研修コースを設け、その内容を広報し、学内外からの希望者を募集して研修を行うことを考えるべきであろう。

9. 別枠の予算と専任職員をもつ中央電子顕微鏡室の設立も考慮されるべきである。技術的には一人前に成長したオヤレクア氏が、他の雑用に忙殺されているのは、実にもったいない。現在のシステムが中央化できないとしても同氏を専任職員とし少なくとも一人の見習いを同氏の指導下におき、後進の指導と且つ試料調整等のサービスを学科外の利用希望者にも提供できる様にするべきであろう。

10. イバダン大学は市の水道給水を受けているが、需給の不均衡から時間給水となっている。しかも水圧が低いいためか折角特設した貯水槽も用をなさず電頭及び蒸着装置の運転出来ない時間が多い。汲上げポンプをつけるか冷却水循環装置を設置せねばなるまい。

11. 供与後5年で確かに全て老化のきざしをみせているが、消耗の部品の交換により、まだ少なくとも5年は使える筈である。Oリングや、標準電流用電池、モリブデン絞り等、その消耗度に応じて3～5セットを最初から供与すべきであったと思う。暗室用電子バットは故障しておりこれは日本でも故障が多く遂に新機種にとり換えられたものなので、修理は諦めた方がよいと思う。

12. 想像以上に現地での実験用資材調達は困難なので(主として時間的に)、派遣専門家は、技術指導に必要な資材だけでなく自身の研究活動に必要な物資は、殆んどすべて持参することが必要である。基礎技術に必要な試薬は一応揃っているが、組織化学用試薬やその他一寸でも特殊技術になると殆んどない。片刃カミソリ刃とビニールテープもなかった。樹脂類、電頭用フィルム、グリッドも持参した方が安全である。その他光学顕微鏡標本作製用機器が不備でマイクローム刀は、パラフィン用とクリオスタット用2本はあった方がよい。仕上砥石と皮砥もない。種類も少なく時々品切れになるので写真材料も必携。温度計、 pH メーター、電流計(テスター)も持参した方が安心。引伸機のネガキャリアーは新調した方がよい。暗室用電子バットは故障している。その他緊急又は、予備として必要な物品は、真空蒸着装置HUS3B用の真空用ゴム管と水圧リレースイッチ、DP用シリコンオイル100 μl 4本、対物レンズボールピース取出し棒2本(HS.7用)、鏡体外装用ペンキ、標準電流用67.5V乾電池2ヶ等である。

○ 受入相手国一般事情

詳細は文末に掲げた参考資料(付録2)をみていたよきたいが、現地での見聞をもとに現状の大きな紹介をしてみたい。

黒人国としては世界最大の人口(約6千万人)を有し、国土が日本の約4倍というナイジェリア連邦共和国はもともと欧州列強の帝国主義的区分け引きによって人為的に作られた国であり、400以上の言語、風俗の異なる部族の寄せ集めとして作られ、現在でも部族毎の住み分けの基礎的なものは変わらず残っている。公用語としては英語が用いられているので学校教育でも英語が最も重要な学科であり、英語で教育が行なわれる。然し一般人は自身の部族語で生活しているから、英語は子

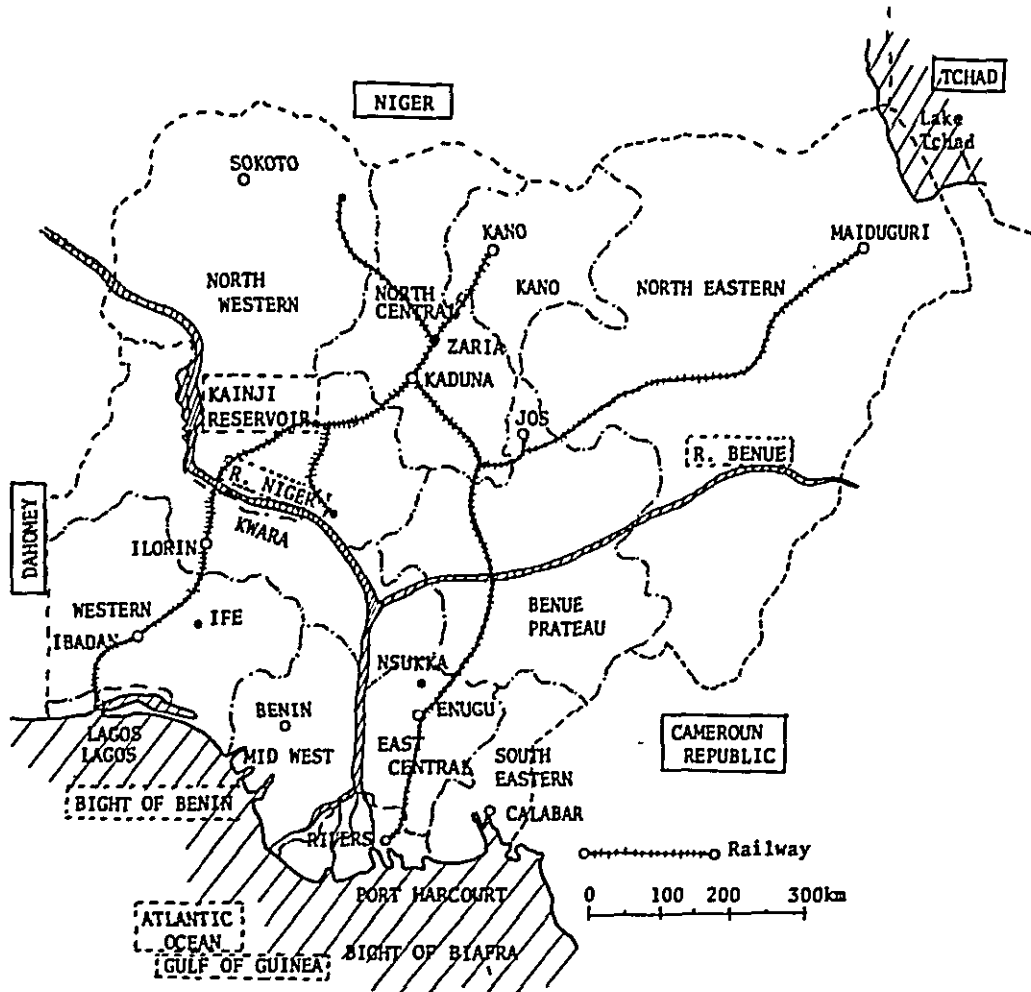


図 1 ナイジェリア略図

供にしか通じないことがよくあり、小学校教育の普及率の低い北方では英語の通じる子供も少なくなるという。勿論大学や都会で生活するには、判り難い“Nigerian English”であるが、英語で通用する。

ナイジェリアは図1の如く、ナイジェー河とその支流ベヌエ河により、大きく三部に分けられ、社会的・文化的区分がほぼこれに平行するので、植民地時代より、北、東、西の三領に行政区分されていた。ハウサー・フラニ族、イボ族、ヨルバ族がそれぞれの領域で優勢であったが、小部族の独立要求の声を入れて現在の十二州制が施行されたという。気候的には東南部の熱帯雨林気候と極く北部の草原気候帯を除き、大部分は乾期と雨期の明瞭なサバンナ気候に属すが、イバダン・エヌグの線の少し北方の線を境にいわゆるブッシュから草原に変わる。北部は、農業、牧畜の他に古くからサハラ砂漠南縁の通商の中心地として栄え、そのハウサ語は、ナイジェリア全土のみならずスーダンから西はマリに至るまで交易の語として通じるという。然し現在では宗教や社会伝統がマイナスに働いて、西欧式近代文明の取入れからみると最も後進的地域となり、医師が20万人に1人、小学校就学率10パーセント、文盲率も非常に高い地方が多い。これと比較して、南部は古くから西欧文明の影響を受け、1970年には小学校就学率が7割を越えたことから推察される如く近代化は北部に比し急ピッチで進んでいる。特にラゴス州は西南の海岸に位置する小州であるが、植民地時代より開発された輸出農産品積出し港そして独立後も続けてナイジェリアの首都として発展してきており、伝統的に政治、経済の中心地として全国より人が集まり最も活気のある州である。独立後は特に通商貿易関係だけでなく工業地帯としても開発が続ぎ、激しい人口流入に伴う公共社会投資が追いつかず、新しい社会問題をもたらしている。世界最大の黒人都市イバダンを始めとし、イフエ、アベオクタ等、都市に集中して生活する傾向の強いヨルバ族も通商に才があり、子弟の教育にも熱心で、高等教育進学率も進学者数も他を引離していた。(付3-24)1964年にベニンを中心として幾つかの小部族が西部のヨルバ支配から独立し中西部州を作ったが、この部族は帝国主義的侵略に最後まで戦い敗れたベニン王国の子孫ということで誇りも高く熱心で優秀な人材が多いということであった。1971年には念願の高等工専Mid Western Institute of Technologyの大学昇格も決り、内戦の被害の再建から更に進んで経済的にも飛躍的發展を目論んでいる。東部は、ビアフラ内戦で世界的に名をひろめたイボ族が主流をなすが、この部族は、早くから近代西欧文明の取入れに積極的で、キリスト教信者も多く家族間でイボ語の代りに英語を使う家族も多いという。植民地時代から植民政府の官吏等として政府・文化面で現地人としては指導的立場にあったが、1960年独立後も主導的グループとなった。しかしイボ族系若手将校による軍事クーデターとそれに伴う政府高官の殺害は、こうした優越イボ族に対する他部族の反感を爆

発させ、各地、特に北部でのイボ族の大虐殺、そしてイボ族によるピアフラ独立宣言へと発展した。現在の国家首席ゴウオン准将をリーダーとする逆クーデターを起した軍部指導者達は、こうした反イボ感情を巧みにまとめあげ、石油利権にからむ外国先進国の干渉をようやく乗り越えて、1970年1月に鎮圧に成功した。心配されたイボ族 genocide や二級国民化も公約通り回避し、内乱収束後1年のナイジェリアは、表面上は和解が成立し、続々とイボ族が内戦勃発前の住所へ職業へ復帰していた。勿論、イボ族のナイジェリアにおける社会的地位は大きく後退し、イバダン大学でも代ってヨルバ系が主流となった。内戦は多数の戦死、戦傷者を出し、建築物の破壊等甚大な損失をもたらしただけに終らず、食料特に主食カサバやヤム芋の大減収からくる物価高騰、1964-68年第一次国家発展計画の大幅な後退、武器購入等による輸入超過による財政の逼迫そして大量の失業者発生等々重大な影響を及ぼしてきている。

1960年独立後、企業誘致等、産業振興に大きな努力を払い、繊維工業、食品加工業等軽工業等に発展をみたが、その数も規模も未だ小さく、重工業、機械工業は独立10年をすぎてようやく2、3設立の予定がたてられているにすぎない。従って産業別人口構成も農林水産業が8割以上で工鉱業従事者は僅く僅かになる。開発途上国共通の悩みと思われるが、資本の欠乏と中・高級技術者、経験ある経営者の不足が最大のネックとなり、国や州政府が直接又は間接に経営に参加したり、海外資本も流入している。実際、大銀行や大企業は殆んどすべて外資が関係しており、その上経営を外国人が握っているとのことであった。その為、特に経済界からの外国人排斥の要求は強く、現政府の主要課題の一つとなっているが、ナイジェリア人自身が、指導的地位にある人から一般人まで白人一般に自国人よりも信頼をよせ、商品も国産品より輸入品を愛用するという社会だから相当難行していた。換金作物として植民政府がひろめた北部の落花生、西部のココア、中西部から東部へかけてのゴムや油ヤシの実等は豊富な林産資源とともに外貨を獲得する重要な輸出商品であるが、1970年には、石油関係の収入が歳費の50%を大きく越えた。国民の総収入も既に貧困国レベルを脱出したということであるが、国民の大多数は水道は勿論、電気のない農村に生活している。都市人口も失業者が多く低所得層が大多数で、都市にいながら電気も使えず食費も切詰めて生活している一方、一部特権階級は、高級車を乗り廻し豊かな生活を楽しんでいる。社会全般に近代化は進んでいるが、伝統的社会慣習制度も健在で、良くも悪くも行政機構末端では決定的役割を担っている。既して中央政府や警察の権威はあまり大きくなく、法律や規則無視は日常化し、武装強盗、窃盗、密輸入も取締りが追付かない様であった。

こうした中で、ゴウオン首席を中心とし各州知事からなる軍部政権は内部の固い団結に基いて強い部族対抗意識に打ち、連邦政府及び州政府に有能な指導的市民を閣僚として迎え、軍の力によ

るとはいえとにかく長期安定政権を確立することに成功した。豊かな石油収入と多額な海外援助資金、技術協力をもとに、内戦の破壊よりの復興と飛躍的な社会・経済的發展を目指した第二次5ヶ年計画1970-1974年を踏足し実行に移してきている。その一環として、道路通行側の変換(1972年4月)、新通貨への切換え(1973年1月)、度量衡のメートル化(1974年)、出生、死亡届けの義務づけを始めとし住民登録を伴う国勢調査等の社会改革を企て、実行に移してきている。特にこの前の1963年の国勢調査の際、調査結果の信頼性をめぐっての対立が、内戦勃発の一契機ともなっただけに、もし今回の調査に成功すれば、ナイジェリア国政史上大きな前進になる。政府や軍隊を始めとし社会機構の多くは植民地時代のもの即ち英国の社会体制をそのまま引継いでいるが、行政機構末端では伝統的社会制度、慣習が残存し、これの近代化、充実が大きな課題である。

教育制度も英国のものがそのまま取入れられているのみならず、特に高等教育では英国との結びつきは非常に強い。即ち、中学校で将来のコースを分けてしまう複式コースであること、進学するにも、職業技能を習得するにも資格試験の合否が採用の基準になり、しかもこういった資格試験は直接又は間接に英国の関係組織の監督下におかれている。高等教育機関としては、各数校の高等工専と高等師範学校の他に現在6校の大学があるが、全て公立(連邦立、州立又は連合州立)である。州制施行後、各州の独立性との関連で州立大学設立の動きが強くなりMITの大学昇格、ベヌエブラト州のイバダン大学ジョス分校設立もその一部の現われである。大学入学者に比し、有資格者数が近年激増し激しい競争試験が課されるようになってきている。(表2, 3, 4, 5参照)

現在、社会の指導的地位にあるナイジェリア人は経済界はもとより法曹界、教育界、医師、軍人等等はすべて英国の高等教育機関の卒業生で占められており、現在も尙多数の海外留学生が、政府やその他各種の奨学金を得ている。富裕なナイジェリア人は子弟を幼少時より海外留学させているのが多い。一方、国内の教育機関、特に中等及び高等教育機関では現在も、欧米人やインド人等が指導的地位を占めており、ここでもナイジェリア化が大きな課題となっている。

表 2 各州の領域、人口及び就学率

	面積 Km ²	人口(1963) (×10 ³)	年3%増上 して(1972) 推定 (×10 ³)	小学校就学率		中学 進学率 (1966)	小学校数 及就学児童数 (1969)	中学校数 及生徒数 (1969)
				(1966)	(1967)			
North Eastern	273,000	7,793	10,000	7.0%	8.9%	0.4%	2,757校 60,1032	207校 46,591
Kano	43,000	5,775	7,500	4.4%	-	0.2%		
North Western	169,000	5,734	7,500	4.3%	-	0.3%	2,757校 60,1032	207校 46,591
North Central	71,000	4,098	5,400	11.2%	13.8%	0.8%		
Benue Plateau	100,000	4,009	5,200	17.0%	20.2%	1.3%	2,757校 60,1032	207校 46,591
Kwara	75,000	2,399	3,100	26.4%	31.4%	2.3%		
East Central	30,000	7,228	9,500	5.42%	-	0.6%	5,949校 1,199,692 (1965)	69校 16,241 (1965年分は 約3,000校)
South Eastern	28,500	3,623	4,700					
Rivers	18,000	1,545	2,000	4.66%	-	6.3%	3,887校 740,614	24校 50,000)
Western	75,000	9,488	12,000					
Mid-Western	39,000	2,536	3,300	8.24%	-	12.2%	1,830校 350,390	135校 16,721
Lagos	3,600	1,444	1,900	71.4%	-	10.0%	45校 231,272	68校 20,711
Total	925,000	55,670	73,000	約30%	-	-		

表 3 TABLE 10.3 TOTAL ENROLMENT IN NIGERIAN UNIVERSITIES: 1966/67

UNIVERSITY	ARTS		EDUCATION		LAW		SOCIAL SCIENCE		PURE SCIENCE		MED PHAS. & NURSING		TECHNOLOGY		Agric. For & Vet. Med.		Post Grad. Dip.		Post Grad. Res.		TOTAL		GRAND TOTAL	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
	AMMADU BELLO IBADAN	263	20	-	-	47	-	142	5	128	12	-	-	200	2	95	1	2	3	13	-	930	43	973
IFE	311	130	262	53	-	-	329	29	462	79	435	68	-	-	348	17	30	7	71	8	2,348	381	2,729	
LAGOS	268	31	-	-	91	6	119	12	180	22	92	40	-	-	64	8	19	-	2	1	815	130	945	
NIGERIA	86	24	34	9	116	18	317	19	119	31	157	19	153	1	-	5	2	4	1	991	125	1,116		
TOTAL	1,484	272	617	108	464	22	1,640	103	1,326	236	684	127	778	4	809	26	57	13	95	13	7,902	966	8,868	
FACULTY TOTAL	1,757		723		436		1,743		1,392		811		780		845		70		107		8,888			
FACULTY %	19.8		8.2		4.9		19.6		17.9		9.1		8.8		9.7		8.8		1.2		100.0			

SOURCE :- NATIONAL UNIVERSITIES COMMISSION

表 4 TABLE 10.4 TOTAL ENROLMENT IN NIGERIAN UNIVERSITIES: 1969/70

UNIVERSITY	ADMINISTRATION		ARTS		EDUCATION		LAW		SOCIAL SCIENCE		PURE SCIENCE		MED PHAS. & NURSING		TECHNOLOGY		Agric. For & Vet. Med.		Curt. & Dip. Courses		Post Grad. Res.		TOTAL		GRAND TOTAL*	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
	AMMADU BELLO IBADAN	157	4	425	93	20	17	72	7	148	9	224	25	134	16	402	5	192	1	51*	7	28	4	2,153	198	2,351
IFE	-	-	311	149	142	35	-	-	482	45	436	77	436	84	-	-	311	27	183	20	183	30	2,679	467	3,146	
LAGOS	-	-	258	73	238	78	81	16	177	25	320	22	173	89	-	-	145	13	28	8	47	3	1,466	317	1,883	
NIGERIA	191	14	145	37	73	22	248	20	213	13	236	48	271	34	239	1	-	-	225	175	54	4	2,827	368	3,195	
TOTAL	348	18	1,339	352	473	132	401	43	1,023	92	1,216	192	993	323	641	6	648	41	597	210	322	41	8,323	1,279	9,602	
FACULTY TOTAL	364		1,891		627		444		1,117		1,308		1,216		667		687		807		363		9,615			
FACULTY %	3.8		19.5		6.5		4.8		11.5		15.6		12.5		6.9		7.1		8.3		3.7		100.0			

SOURCE :- NATIONAL UNIVERSITIES COMMISSION

NOTE :- * LAGOS UNIVERSITY B.A. EDUCATION 52; B.Sc. EDUCATION 44.
 ** IFE UNIVERSITY B.A. EDUCATION 216 B.Sc. EDUCATION 102.
 *** LAGOS UNIVERSITY; M.C.I. ARTS 238; SCIENCE 22.
 * SCHOOL OF BASIC STUDIES.

表 5 大学在籍数，毕业生，新入生数

大学	在籍数					毕业生数 (以內大学校等)			新入生	医学部在籍数		
	年度	64/65	66/67	67/68	68/69	69/70	68/69	69/70		70/71	71/72	69/70
AMMADU BELLO		719	973	1352	1754	2351	293	458	683 (11)	662	52	84
IBADAN		2284	2729	2593	3118	3146	614 (14)	808 (15)	771 (13)	1255	556	625 (7)
IFE		1350	945	1254	1668	1803	302 (55)	359 (94)	454 (53)	1000	0	60
LAGOS		1000	1116	1859	2062	2395	412 (22)	548 (30)	-	674	306	?
NIGERIA		2500	3125	-	-	-	-(8)	-(14)	683 (16)	-	60	160
M.I.T.		0	0	0	0	0	0	0	-	-	20	40 (7)

-位不明

○ ナイジェリアの医療事情

概略は既に1968年の本事業団の医療調査団により報告されているので、詳細はこの報告及び付録3にあげた参考資料をみて頂くことにして、ここでは最近の動きや、筆者の見聞した範囲内での問題点を指摘するに留めたい。又、付録4に連邦政府及び各州政府の現行5ヶ年計画(1970-1974年)の医療関係プロジェクトの抜萃をのせてあるので現状把握の参考にされたい。

ナイジェリアの医療事情は一口に言って昔ながらの呪術師(medicine man, native doctor, witch doctor)が未だに存在価値を失っていないという事実象徴される。一方では医者や看護婦はおろか、施療院dispensariesの程度の低い医療サービスの恩恵にも浴せない辺鄙な地域に住む多数の人達は、精神療法的であるとはいえ若干の治療効果をあげる程度ある呪術師を頼るしかないし、又他方、18才未満や低所得者は医療費無料という都市部に住みながらも白人の医療よりも呪術師を選ぶ人も少なくないという。

医師を始めとし人的にも物的にもナイジェリアの医療機構は質量ともに徹底的に不足しており、現行5ヶ年計画でも重点施策の一つとなっている。(表6) もともと宗教伝道団体の献身的貢献により出発したナイジェリアの医療体制は、特に近年、中央及び地方政府に主役が代ってきているが、ミッション関係の医療は依然として重要な役割を果たしている(表7, 8)。医療サービス機構は全般として英国のそれに準じており、1966年度の本事業団よりの医療調査団の報告(医協資第一号)にあるセイロンの医療体制と酷似しているので参照されたい。

医療行政は原則として地方政府の管轄下であり、連邦政府保健省は連邦立の数ヶの病院(イバダン大学教育病院、ラゴス大学病院、アロ精神病院等)、各種パラメディカル技師訓練学校及び各種の医学研究所の直接管理にあたる外は伝染病の予防撲滅運動等に直接タッチしている。国全体の医療行政の調整は連邦政府及び各州政府の保健省長官及び次官の会合であるNational Council of Healthで行なっており、1972年3月Kadunaで開かれた会合では新卒医師の僻地勤務義務付けと出生・死亡登録の義務付けを議決した。この外、連邦政府は州政府にそして後者は更に郡、市町村等への資金援助を通じて調整を行なっている。医学研究面では1972年に従来のWest African Council for Medical Research (Nigeria)がNigerian Council for Med. Res.となり各研究所や大学間の調整、奨励研究金の分配等を行なっている(付録3, 32参照)。

州政府では数ヶの州立総合病院と保健所を通して医療サービスを行なうが、この他伝染病病院、精神病院、結核療養所等を運営する。進んだ州では更に州立の歯科センター、眼科診療所を持ち、病院や後述の施療院に配布すべき医薬品を大量に買い貯めし管理するMedical Storeを持つ。

表 6 (a)

TOTAL PUBLIC SECTOR CAPITAL INVESTMENT, 1970-74

£million

Sector	Total	Federal Government	All States	Burma-Plains	East-Central	Kano	Kwara	Lagos	Mid-Western	North-Central	North-Eastern	North-Western	Rivers	South-Eastern	Western
A. ECONOMIC															
1. Agriculture ..	107,663	30 835	76,828	2,924	10,389	16,719	2,370	3,000	4 100	3,219	4 130	3 982	4,267	7,655	14 053
2. Livestock, Forestry and Fishing ..	25,004	3 185	21 819	0 902	2,250	1,367	0,631	2,753	2 410	0 816	2,333	1 847	2,109	0 807	3,569
3. Mining ..	2,336	2,336	—	—	—	—	—	—	—	—	—	—	—	—	—
4. Industry ..	96,069	40 817	45,252	1 950	5,650	3,500	2,156	2,460	3 363	2,568	4 031	2 527	4,033	3,009	8,005
5. Commerce and Finance ..	18 890	10,970	7,920	0 100	1,600	1,546	1,700	0,300	0 430	0 250	0 100	0,200	0,200	0 100	1,500
6. Fuel and Power ..	45,325	45 325	—	—	—	—	—	—	—	—	—	—	—	—	—
7. Transport ..	242,599	167 133	75 466	7,010	5 001	5,500	3,350	4,000	3 891	6,321	9,970	3 310	7,490	6,210	8 413
8. Communications ..	42,641	42,641	—	—	—	—	—	—	—	—	—	—	—	—	—
9. Resettlement and Rehabilitation ..	10,000	10 000	—	—	—	—	—	—	—	—	—	—	—	—	—
10. Sub-Total ..	580,777	353,495	227,282	12,886	24 890	28,446	10,207	12,415	21 194	13,174	20,384	11,866	18 099	17,781	33,540
B. SOCIAL															
11. Education ..	338,893	49 122	29 771	5,245	8,000	8 100	2,608	3,809	6 763	9 142	4 600	7,415	5,275	4,214	24,500
12. Health ..	33 813	10 130	43,681	0,885	7,000	4 910	3,211	2,500	4,202	3,041	3 133	4,275	3,212	1,700	3,612
13. Information ..	10,931	9,782	6,149	0,400	1,000	0 030	0 100	0 100	0,500	0 180	0,839	0 500	0 500	0,500	1,500
14. Labour and Social Welfare ..	11,974	3,004	8,970	0,235	0,500	1,032	1,332	0 900	0,376	0 964	0 882	0 740	0 418	0 400	1,200
15. Town and Country Planning ..	19,075	5,287	13 788	0,300	1,750	1,600	0,500	0,500	0,688	2,100	0,600	0,200	1,050	2,000	2,500
16. Water and Sewerage ..	51,696	—	51,696	4,323	3 413	4 500	3,038	4,364	3 700	7,333	2,707	2,033	2,500	2,040	11,545
17. Sub-Total ..	296,380	72,325	214,055	11,378	21,663	20 173	10,799	12,173	16,229	22,960	12,561	15 163	13,255	10 854	46,857
C. ADMINISTRATION															
18. General Administration ..	52,370	23,432	28,938	2,203	4,251	3,246	1 808	2,537	1,070	1,506	2 693	3 086	2,603	0,935	3,000
19. Defence and Security ..	96,360	96,360	—	—	—	—	—	—	—	—	—	—	—	—	—
20. Sub-Total ..	148 730	119,792	28 938	2,203	4,251	3,246	1 808	2,537	1,070	1,506	2,693	3 086	2,603	0,935	3,000
D. FINANCIAL															
21. Financial Obligations ..	9,482	9,482	—	—	—	—	—	—	—	—	—	—	—	—	—
22. Sub-Total ..	9,482	9,482	—	—	—	—	—	—	—	—	—	—	—	—	—
23. Nominal Total ..	1,025,349	533,094	470,275	26,467	50,804	52,065	22,804	27,125	38,493	37,640	35 838	30,115	33 937	29,570	83,397

表 6 (b)

TOTAL PUBLIC SECTOR CAPITAL INVESTMENT, 1970-74

Percentage Distribution

Sector	Total	Federal Government	All States	Burma-Plains	East-Central	Kano	Kwara	Lagos	Mid-Western	North-Central	North-Eastern	North-Western	Rivers	South-Eastern	Western
A. ECONOMIC															
1. Agriculture ..	10.5	5.5	16.3	11.0	20.5	32.1	10.4	11.1	10.6	8.5	11.4	13.2	12.5	15.9	16.5
2. Livestock, Forestry and Fishing ..	2.4	0.6	4.8	3.4	4.4	2.8	2.8	10.2	6.5	2.2	6.6	6.1	6.2	2.7	4.2
3. Mining ..	0.3	0.3	—	—	—	—	—	—	—	—	—	—	—	—	—
4. Industry ..	8.4	7.3	9.6	7.4	11.1	6.7	9.4	9.1	13.9	6.8	11.3	8.4	11.9	10.3	9.4
5. Commerce and Finance ..	1.8	2.0	1.7	0.4	3.2	3.0	7.5	0.7	1.1	0.7	0.5	0.7	0.6	0.5	1.7
6. Fuel and Power ..	4.4	8.2	—	—	—	—	—	—	—	—	—	—	—	—	—
7. Transport ..	23.7	30.1	16.1	26.5	9.8	10.6	14.7	14.7	21.1	16.8	27.8	11.0	22.1	31.0	9.8
8. Communications ..	4.3	7.7	—	—	—	—	—	—	—	—	—	—	—	—	—
9. Resettlement and Rehabilitation ..	1.0	1.8	—	—	—	—	—	—	—	—	—	—	—	—	—
10. Sub-Total ..	54.7	63.7	48.3	48.7	49.0	55.0	46.8	45.8	55.0	35.0	57.4	39.4	53.3	60.1	41.6
B. SOCIAL															
11. Education ..	13.5	8.8	19.1	19.8	15.7	15.4	11.4	14.0	17.6	24.3	12.3	24.6	16.4	14.2	28.7
12. Health ..	3.2	1.8	9.3	3.4	13.8	6.4	14.1	9.2	10.9	8.1	8.7	14.2	9.4	5.7	6.6
13. Information ..	1.1	0.9	1.3	1.5	2.0	0.1	0.5	0.4	1.5	0.5	2.3	1.6	1.5	1.7	1.8
14. Labour and Social Welfare ..	1.3	0.5	1.9	0.9	1.0	2.0	5.8	3.3	1.0	2.5	2.5	2.4	1.2	1.4	1.4
15. Town and Country Planning ..	1.9	1.0	2.9	1.1	3.4	3.1	2.2	1.9	1.8	5.6	1.7	0.7	3.1	4.8	2.9
16. Water and Sewerage ..	3.0	—	11.0	16.3	6.7	8.6	13.3	16.1	9.6	20.0	7.5	6.8	7.4	6.9	13.5
17. Sub-Total ..	27.9	13.0	45.3	43.0	42.6	28.8	47.3	44.9	42.2	61.0	35.0	50.3	39.0	36.7	54.9
C. ADMINISTRATION															
18. General Administration ..	5.1	4.2	6.2	6.3	8.4	6.2	7.9	9.3	2.8	4.0	7.5	10.3	7.7	3.2	3.5
19. Defence and Security ..	9.4	17.0	—	—	—	—	—	—	—	—	—	—	—	—	—
20. Sub-Total ..	14.5	21.6	6.2	6.3	8.4	6.2	7.9	9.3	2.8	4.0	7.5	10.3	7.7	3.2	3.5
D. FINANCIAL															
21. Financial Obligations ..	0.9	1.7	—	—	—	—	—	—	—	—	—	—	—	—	—
22. Sub-Total ..	0.9	1.7	—	—	—	—	—	—	—	—	—	—	—	—	—
23. Nominal Total ..	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

表 7 病院及びそのベット数 1968

	North	East	West	Mid-West	Lagos	Total
公立病院 General Hospitals and Nursing Homes	(ベット数) 46(5105)	27(1821)	23(2010)	9(660)	6(659)	111(10255)
Special hospitals	2(135)	3(232)	3(900)	-(-)	5(1449)	13(2716)
Infectious Diseases H.	4(68)	8(457)	34(269)	3(25)	2(244)	51(1063)
Maternity Centers Clinics and Rural Health Centers	17(3)	257(1363)	283(86)	103(22)	16(12)	676(1486)
Leprosy Settlements	230(30)	2(184)	140(-)	1(106)	1(-)	374(320)
Dispensaries	316(-)	355(-)	427(-)	161(-)	12(-)	1271(-)
小 計	615(5341)	652(4057)	910(3265)	277(813)	42(2364)	2496(15840)
ミッション及び私立病院 General Hospitals and Nursing Homes	23(1658)	63(5052)	17(1115)	12(535)	11(210)	126(8570)
Special Hospitals	2(236)	9(144)	6(548)	2(69)	32(174)	51(1171)
Infectious Diseases H.	-(-)	-(-)	-(-)	-(-)	-(-)	-(-)
Maternity Centers Clinics and Rural Health Centers	32(133)	243(1280)	92(136)	44(-)	105(17)	516(1566)
Leprosy Settlements	19(514)	6(321)	12(-)	1(-)	-(-)	38(835)
Dispensaries	48(-)	43(-)	10(-)	-(-)	8(-)	109(-)
小 計	124(2541)	364(6797)	137(1799)	59(604)	156(401)	840(12142)
合 計	739(7882)	1016(10854)	1047(5064)	336(1417)	198(2765)	3336(27982)

表 8 西部州の医療機関 1970

Ownership	Hospitals and Nurs- ing Homes	Infectious Diseases Hosp.	Leprosy Clinics etc.	Maternity and Child Welfare Cen.	Rural Health Centers	Dispen- saries	Dental Centers
Western St. Govt.	37	4	11	1	10	3	6
Local Authorities	-	30	123	276	3	434	-
Missions	14	-	12	21	-	3	1
Private Individuals	11	-	-	62	-	-	-
Commercial and Industrial Firms	-	-	-	-	-	8	-
Total	62	34	146	360	13	448	7

医療機構の不備な北部諸州では移動診療所 (Mobil Clinics) を仕立て、僻地への医療サービスを行なっている。医師を中心とした 4, 5 人のチームを作り町から町、村から村へと移動して患者摘発と治療を行なって成果を挙げてきている Yaws 撲滅キャンペーンの Medical Field Unit 組織を他のキャンペーンに採用している州もあるが、医師の不足でこれも出来ない州が多いという。医師の確保の為に医学生や新卒医師に多額の奨学金を与えたり、質の低い総合病院を充実させて教育病院なみの病院にして専門医を集めようと努力している州も多い。看護婦のみならず保健所職員等パラメディカル職員の重要性の認識から州立の Auxiliary Health School を持つ州がふえてきている。

市町村レベルでは各カウンシルの管轄下に施療院 (dispensary), 母子センター (maternity centers , maternity and children welfare center 等) や市町村の保健所等がおかれるが、数も少なくその上医師はおろか訓練された職員にもこと欠くという状態でその医療の質は非常に低いところが多い。これら施設の改善、増設が焦眉の問題となっており、州政府の協力のもとに治療及び保健教育機関として再編が試みられている (付録 4 参照) 。

ナイジェリアの医育制度も英国の制度と全く同様であるので詳細は省略する。医師養成機関としては現存 6 大学 (IBADAN , LAGOS , NIGERIA , AHMADU BELLO , IFE , MID-WESTERN INSTITUTE OF TECHNOLOGY) がいずれも医学部を設置したが、イバダン大とラゴス大以外は満足して未だ日も浅く卒業生を出すに至っていない。1980年迄には新卒医師の全国合計が年約 500 名、医学部新入生が約 1,000 名に達する予想であるが、年率約 3% の人口増加に辛うじて追いつくのみで、現在の全国ならして約 2 万の人口に医師 1 人という医師不足は解消しそうにない。従来新卒医師の過半数は欧米の教育病院へ留学し、専門医の資格を 3~5 年もかかってとっており、この事実上医師の国外流出を防ぐ意味で、1971 年度よりイバダン及びラゴス両大学では卒業研修コースを始めたが、成果が期待されている。現在でも特に北部諸州では外国人医師が重要な役割を果たしているが、医療機構の拡充に必要な医師を海外へ求めることも考慮されていた。歯科医師養成はラゴス大学教育病院、歯科補助技術員養成は連邦立及び州立の技師学校で行なわれている。

ナイジェリアの疾病傾向は典型的な後進性を示す (表 9~13)。即ち、高い乳幼児の死亡率、伝染性消化器疾患や結核、肺炎の患者が多く、又マラリア、Trypanosomiasis (睡り病)、黄熱病、住血吸虫症、Filariasis (線虫症) 等風土病が維然として猛威を振っている。

1950 年代に始められた Yaws 根治キャンペーンで Yaws 患者は減少したが、最近はこれに代って梅毒、淋病等の性病が増加してきている。類も維然として毎年新患者の発生をみている。指

表 9

TABLE 15.8 REPORTED CASES AND DEATHS FROM NOTIFIABLE DISEASES BY STATE : 1966 AND 1967

WASHU

DISEASE	1966											
	CASES						DEATHS					
	North	East	West	Mid-West	Lagos	Total	North	East	West	Mid-West	Lagos	Total
Smallpox	4,366	109	250	134	92	4,952	254	22	19	13	16	406
Scarlatinal Meningitis	3,708	126	13	10	81	3,938	459	5	-	1	59	524
Influenza	988	395	-	-	9	1,392	-	-	-	-	1	1
Poliomyelitis (Acute)	38	41	27	1	3	110	1	2	-	-	3	6
Typhus	69	36	49	-	-	154	-	-	-	-	-	-
Amoebiasis	-	-	-	-	-	-	-	-	-	-	-	-
Cholera	7,728	7,173	1,364	834	1,516	18,615	48	5	2	-	6	62
Diphtheria	2	-	-	2	-	4	-	-	-	-	-	-
Dysentery - all forms	95,953	30,112	21,917	14,441	1,872	144,295	57	26	21	-	65	170
Malaria	41,822	33,740	13,403	4,411	3,599	87,035	508	136	35	10	117	806
Pneumonia	30,329	9,186	4,419	2,275	725	46,934	115	-	27	24	448	773
Bubonic Plague	5	19	-	23	-	47	5	13	-	-	-	18
Typhoid	329	747	432	141	244	2,123	37	88	45	26	133	349
Tuberculosis	5,626	3,437	3,274	878	1,043	14,260	70	25	5	11	62	173
Typhoid and Paratyphoid	402	31	5	-	2	440	1	-	-	-	1	2
Whooping Cough	7,034	6,189	3,653	1,027	2	17,905	26	7	3	-	1	37
Infective Hepatitis	1,034	1,323	131	18	115	2,401	6	4	6	-	4	20
Infective Mononucleosis	720	1,095	732	224	7	2,780	4	-	1	-	2	7
Food Poisoning	10	38	4	97	5	234	3	3	3	1	5	15
Leptospirosis	918	318	59	28	2	1,305	1	11	-	1	-	13
Ophthalmia Neonatorum	2,644	740	140	267	10	3,721	-	-	-	-	-	-
Gonorrhoea	53,311	5,846	1,147	4,195	401	64,900	10	8	-	-	-	18
Syphilis	9,318	489	617	5	25	10,454	-	-	-	-	-	-
Trachoma	2,272	51	16	7	270	2,436	-	-	-	-	-	-
Malaria	141,472	142,819	63,432	62,471	5,819	436,233	68	96	16	12	139	330
Filaria	2,899	9,004	1,460	7,446	18	13,047	-	-	3	-	-	3
Schistosomiasis - Visceral	12,710	207	336	140	-	13,393	3	-	-	-	-	3
Schistosomiasis - Intestinal	3,903	444	193	53	-	4,593	-	-	-	-	-	-
Onchocerciasis	6,281	742	37	374	1	7,385	-	-	-	-	-	-

DISEASE	1967											
	CASES						DEATHS					
	North	East	West	Mid-West	Lagos	Total	North	East	West	Mid-West	Lagos	Total
Smallpox	4,047	319	283	69	15	4,733	323	28	34	7	1	395
Scarlatinal Meningitis	1,947	62	25	-	82	2,116	138	8	3	-	78	225
Influenza	530	186	-	-	2	718	-	-	-	-	1	1
Poliomyelitis (Acute)	18	7	37	-	2	64	-	-	-	-	1	1
Typhus	-	8	4	1	-	13	-	-	-	-	-	-
Amoebiasis	2	-	-	-	-	2	-	-	-	-	-	-
Cholera	6,009	4,951	2,921	1,263	2,732	17,876	18	-	-	-	-	18
Diphtheria	-	5	-	-	1	6	-	2	-	-	1	3
Dysentery - all forms	77,811	2,086	21,409	18,404	12	124,722	116	4	4	7	12	143
Malaria	40,437	11,813	13,200	5,184	2,444	73,078	380	75	104	10	148	727
Pneumonia	21,743	7,499	3,132	2,177	712	35,363	44	52	25	29	668	818
Bubonic Plague	6	19	-	3	-	28	5	2	-	1	-	8
Typhoid	513	230	575	202	198	1,721	33	32	59	28	148	290
Tuberculosis	4,144	890	2,323	870	964	9,201	45	9	6	9	84	131
Typhoid and Paratyphoid	82	44	17	3	10	156	-	3	3	2	9	15
Whooping Cough	7,831	1,649	4,025	1,221	56	14,782	18	1	9	-	13	41
Infective Hepatitis	850	599	192	6	126	1,773	8	2	6	-	72	86
Infective Mononucleosis	441	123	300	89	-	953	-	-	-	-	-	-
Food Poisoning	29	83	2	9	2	125	-	-	-	-	1	3
Leptospirosis	632	124	47	12	1	816	-	2	-	-	-	2
Ophthalmia Neonatorum	1,347	270	144	77	6	1,844	-	-	-	-	2	2
Gonorrhoea	41,373	1,445	596	3,013	116	46,543	8	-	-	-	1	9
Syphilis	8,563	104	93	45	3	8,813	-	-	-	-	-	-
Trachoma	1,791	122	6	7	-	1,926	-	-	-	-	-	-
Malaria	125,388	37,230	60,238	64,811	538	284,225	29	19	6	18	277	369
Relapsing Fever	-	2	-	-	-	2	-	-	-	-	-	-
Filaria	3,117	2,242	1,025	1,143	-	7,527	13	-	-	-	-	13
Schistosomiasis - Visceral	6,344	95	204	145	-	6,788	3	-	-	-	-	3
Schistosomiasis - Intestinal	4,298	64	86	3	-	4,451	-	-	-	-	-	-
Onchocerciasis	4,957	243	12	142	-	5,352	1	-	-	1	-	2

Source - Federal Ministry of Health, Lagos.
 Figures include cases provisionally diagnosed after dog-bite, but not proved.
 Includes Borno Division now in Lagos State.

MAJOR CAUSES OF MORBIDITY: LAGOS HOSPITALS AND CLINICS, 1965 - 1967

CAUSE OF MORBIDITY	1965		1966		1967	
	Number of Cases	Per cent of All Cases	Number of Cases	Per cent of All Cases	Number of Cases	Per cent of All Cases
Respiratory Infections	27,701	4.9	71,992	10.5	38,880	6.0
Skin Infections	34,120	6.0	43,415	6.4	28,531	4.3
Malaria	37,154	6.5	62,985	9.2	37,875	5.8
Pyrexia of Unknown Origin	4,413	0.8	30,734	4.5	51,809	7.9
Dysentery	37,995	6.7	40,190	5.9	23,750	3.6
Eye Infections	5,300	0.9	21,126	3.1	14,005	2.1
Gonococcal Infections	2,267	0.4	7,316	1.1	7,499	1.1
Malnutrition	13,279	2.3	14,828	2.2	9,270	1.4
Helminthiasis	10,803	1.9	10,420	1.5	5,419	0.8
Rheumatism	4,474	0.8	4,513	0.7	3,007	0.5
Traffic Accident Cases	2,511	0.4	5,893	0.9	3,927	0.9
Ear Infection	8,722	1.6	5,829	0.8	4,015	0.6
Mumps	7,702	1.4	3,572	0.5	6,242	0.9
Cataract	5,175	0.9	6,698	1.0	5,758	0.9
Refractive Errors of Eye	3,329	0.6	4,851	0.7	9,103	1.4
Glaucoma	2,704	0.5	3,382	0.5	3,356	0.5
Whooping Cough	2,175	0.4	10,860	1.6	12,053	1.9
Meningococcal Infections	814	0.1	4,421	0.6	163	-
Mental Diseases	6,231	1.1	3,670	0.5	2,741	0.4
Infective Hepatitis	262	-	2,069	0.3	1,177	0.2
Hypertension and Heart Diseases	1,403	0.3	3,136	0.5	3,981	0.6
Hernia	1,269	0.2	2,005	0.3	1,842	0.3
Syphilis	46	-	1,194	0.2	38	-
Tonsillitis	437	0.1	475	0.1	125	-
Tetanus	298	-	1,113	0.2	764	0.1
Peptic Ulcer	2,921	0.6	1,714	0.2	2,844	0.4
Diabetes Mellitus	54	-	1,770	0.3	2,132	0.3
Rheumatic Fever	-	-	192	-	19	-
Cirrhosis of Liver	188	-	66	-	26	-
Toxaemia of Pregnancy	307	0.1	574	0.1	845	0.1
Food Poisoning	223	-	51	-	37	-
Accidental Falls	-	-	7,949	1.2	7,351	1.1
Diarrhoea of newborn	-	-	5,022	0.7	4,834	0.7
Scabies	-	-	3,012	0.4	-	-
Chicken Pox	-	-	2,279	0.3	2,219	0.3
Asthma	-	-	2,059	0.3	1,817	0.2
Yaws	-	-	1,153	0.2	2,485	0.4
Other Causes	343,776	60.5	290,449	22.5	355,465	54.3
ALL CAUSES	568,254	100.0	683,179	100.0	658,401	100.0

Source: Federal Ministry of Health, Lagos.

H E A L T H

TABLE 15.8

表 11

SUMMARY OF DISEASES AND DEATHS - 1989: (OF MEDICAL UNITS IN LAGOS)

DISEASE GROUPS	Number											
	IN-PATIENTS						OUT-PATIENTS					
	CASES			DEATHS			CASES			DEATHS		
	MALES	FEMALES	BOTH SEXES	MALES	FEMALES	BOTH SEXES	MALES	FEMALES	BOTH SEXES	MALES	FEMALES	BOTH SEXES
Infective & Parasitic Diseases	538	472	1,010	153	99	252	58,576	44,743	103,319	111	79	190
Neoplastic Diseases	14	34	48	3	4	7	44	41	85	-	-	-
Nutritional, Endocrine & Blood Diseases	170	201	371	43	48	91	9,654	7,560	17,214	64	57	121
Mental Diseases	796	237	1,033	19	8	27	3,022	1,908	4,930	-	1	1
Diseases of Nervous System & sense Organs	340	238	578	58	40	98	41,990	30,567	72,557	18	9	27
Diseases of Heart & Circulatory System	133	137	270	41	51	92	2,352	2,025	4,377	1	-	1
Diseases of Respiratory System	354	345	699	93	63	156	28,070	21,655	49,725	181	149	330
Disease of Digestive System	497	283	780	65	26	91	13,977	13,574	27,551	95	84	179
Diseases of Genito-Urinary System	80	1,163	1,243	11	20	31	1,102	4,059	5,161	-	-	-
Disease of Pregnancy & Child Birth	-	72,048	72,048	-	54	54	-	2,602	2,602	-	-	-
Diseases of Skin & Muscular Skeletal System	195	126	321	8	6	14	20,122	15,556	35,678	-	-	-
Congenital Malformation	18	18	36	3	6	9	180	51	231	-	-	-
Disease Peculiar to Infancy	132	509	641	57	48	105	4,801	6,245	11,046	55	40	95
Ill-Defined Diseases	293	90,661	90,954	20	26	46	118,256	114,280	232,536	81	47	128
Accidents, Poisons and Violence	1,773	726	2,499	87	31	118	42,206	21,923	64,129	45	21	66
TOTAL	5,303	117,198	122,531	641	500	1,191	346,322	290,857	637,179	651	487	1,138

Source: Federal Ministry of Health, Lagos.

QUARANTINABLE AND COMMUNICABLE DISEASES NOTIFIED IN
WESTERN STATE OF NIGERIA FROM 1965 - 1970

表 12

QUARANTINABLE DISEASES		Y	E	A	R	1970	
		1965	1966	1967	1968		1969
Smallpox	C	383	244	246	44	39	1
	D	63	17	7	7	3	-
Others (Cholera)	C	3	-	-	5	1	-
	D	-	-	-	-	-	-
COMMUNICABLE DISEASES							
Amoebic Dysentery	C	742	1,774	366	275	1,493	823
	D	-	1	-	-	-	1
Bacillary Dysentery	C	1,048	1,927	891	2,093	3,312	1,691
	D	-	4	1	-	2	-
Unclassified Dysentery	C	13,542	13,327	8,479	14,564	20,761	20,884
	D	15	18	3	5	9	11
Pneumonia	C	4,020	3,756	2,142	4,841	5,718	5,066
	D	23	13	52	39	38	64
Tuberculosis	C	3,131	3,114	1,969	3,161	3,670	3,571
	D	8	1	1	7	2	9
Tetanus	C	504	402	263	446	636	604
	D	22	25	19	49	66	60
Leprosy	C	411	36	61	95	65	78
	D	-	-	-	3	-	1
Ophthalmia Neonatorum	C	251	201	74	81	140	379
	D	-	-	-	-	-	2
Gonorrhoea	C	1,117	1,006	370	940	1,473	1,255
	D	-	-	-	-	-	-
Syphilis	C	28	83	48	64	87	108
	D	-	-	-	-	2	-
Trachoma	C	23	11	-	4	57	24
	D	-	-	-	-	-	-
Malaria	C	36,923	55,600	33,297	77,979	94,694	81,278
	D	21	5	3	20	31	63
Filariasis	C	827	1,157	892	1,442	1,118	1,111
	D	-	-	-	-	-	-
Onchocerciasis	C	23	16	57	9	13	148
	D	-	-	-	-	-	-
Schistosomiasis Vesical	C	473	254	117	233	115	102
	D	-	-	-	-	-	-
Schistosomiasis Intestinal	C	30	123	102	84	194	69
	D	-	-	-	-	-	-
Schistosomiasis Unclassified	C	117	560	693	811	1,018	626
	D	1	-	-	-	-	-
Sleeping Sickness	C	2	2	1	-	-	22
	D	-	-	-	-	-	-
Cerebro Spinal Meningitis	C	11	22	25	29	20	95
	D	1	3	2	2	3	1
Influenza	C	-	-	-	-	344	38
	D	-	-	-	-	-	-
Acute Poliomyelitis	C	148	137	60	91	45	13
	D	-	-	-	-	-	-
Anthrax (Human)	C	-	-	-	-	2	-
	D	-	-	-	-	-	-
Chicken-pox	C	1,626	835	2,139	1,595	1,317	1,782
	D	1	1	1	2	1	-
Diphtheria	C	210	40	27	149	1	-
	D	-	-	-	4	-	-
Measles	C	13,210	12,649	9,437	6,809	9,007	12,450
	D	63	28	71	83	24	41
Rabies (Human)	C	7	8	-	3	10	5
	D	1	2	-	-	3	4
Typhoid and Paratyphoid	C	97	94	76	92	35	128
	D	1	9	-	3	4	3
Whooping Cough	C	4,531	3,048	3,391	6,215	3,580	2,104
	D	9	2	9	3	-	4
Infectious Yaws	C	585	243	116	112	177	130
	D	-	-	-	-	-	-
Infective Hepatitis	C	192	120	164	168	177	270
	D	6	4	2	4	-	-
Food Poisoning	C	12	19	2	7	5	1
	D	-	3	-	-	-	-
TOTAL	C	84,227	100,838	65,365	122,387	149,327	134,855
	D	234	136	151	231	188	264

NOTE: C = CASES D = DEATHS

MORBIDITY AND MORTALITY FROM HOSPITALS IN WESTERN
STATE OF NIGERIA BY GROUPS OF DISEASES, 1970*

表 13

GROUPS OF DISEASES	NUMBER OF					
	OUT - PATIENTS		ADMISSIONS		DEATHS	
	Male	Female	Male	Female	Male	Female
1. Infective and Parasitic	208,906	174,834	15,599	15,202	1,089	1,071
2. Neoplasms	1,000	739	164	168	8	4
Malignant			13	14	1	1
Benign	28	19				
3. Endocrine	1	566	153	114	11	3
Endocrine						
Nutritional and Metabolic	35,197	29,527	1,733	2,130	135	149
Avit aminoses and Nutrit. deficiency						
Metabolic	591	310	117	98	19	16
4. Blood and Blood Organs	15,216	21,126	2,098	2,132	174	120
5. Mental Disorders	245	122	70	63	3	1
6. Nervous System and Sense Organs	19,181	15,398	579	409	35	37
7. Circulatory System	6,243	4,528	578	468	71	144
8. Respiratory System	43,477	34,037	4,241	3,230	330	239
9. Digestive System	32,649	25,416	4,453	1,152	52	23
10. Genito Urinary System	1,799	7,464	605	1,728	20	177
11. Complications of Pregnancy		2,225		6,957		264
Complicat. of Normal Deliveries		3,261		5,620		217
12. Skin and soft Tissue	25,216	19,687	620	198	4	1
13. Musculo-Skeletal System	12,322	7,585	378	207	5	1
14. Congenital Anomalies	99	107	41	419	2	6
15. Perinatal Morb. and Mort.	100	126	104	200	9	22
16. Symptoms and Ill-defined conditions	16,357	11,369	807	605	145	51
17. Accidents	55,102	34,295	4,027	1,990	198	87
TOTAL	474,389	392,741	36,440	43,104	2,311	2,634

* Excluding U. C. H. - Ibadan.

摘する迄もなくこれらの疾患の多くは、生活特に食生活の改善、保健思想の普及によって激減する筈であり、単に医療機構の拡充だけでなく公衆衛生行政の拡充に重点がおかれる所以である。又、上下水道の整備、道路等交通通信機関の整備、教育の普及等が、直接、間接に医療サービスの向上に関与してくる。1970年末に侵入したコレラは、またく間に全国にひろがり1971年度前半で確認されたコレラ患者の死亡者だけでも5千名を越えた。同年後半には下火になったが、絶滅したわけではなく、赤痢と同様風土病化したという説明であった。

ミッション団体の病院やヘルメント等がナイジェリアの医療体制に重要な部分となっていることは既にふれたが、WHO等国际機関による特に第二次大戦後の技術的、物質的援助も同国の医療事情改善に大きな役割を果たしていることも忘れられない。既にふれたMedical Field UnitsによるYaws 撲滅キャンペーンの他、マラリア対策、天然痘撲滅、ハンカ予防接種等の事業、各種技師訓練の実施等多岐に亘る活動を行なってきた。各国政府レベルの医療協力は比較的少く、USAIDによるエスグspecialists hospital 再建へ1億5千万円供与、イバダン上下水道整備計画への借款と技術提供等が目についたのみで、他は各大学の医学部等が欧米の大学や財団と協力計画を持ったり、各国から名種の奨学金や研究奨励金を受けるという形で医療技術協力が行なわれている。英国では発展途上国の高等教育機関に雇職することを奨励する為、本俸を契約先から受ける赴任者に対して更に何割かの奨励手当を支給しているが、これも一種の技術協力とみなせよう。

非常に大雑把にナイジェリアの医療事情の現況を紹介したが、最後に当国の直面する問題点を列記して将来の参考としたい。

- 医療機構の不足、不備。
- 医療従事者の絶対的不足。
- 医療行政の立遅れ。
- 保健教育の不徹底。
- 医療の障害となっている上下水道、道路等公共投資の立遅れ。
- 生活程度の低さ、特に食生活の貧困、不健康な住生活。
- 伝染病及び風土病の蔓延。
- 内戦及び疾病から生じた多数の心身障害者の存在。
- 医療サービスの普及度の地域による著しい差、即ち北部諸州の立遅れ。
- 爆発的な人口増加による圧力。

等、いずれも大問題であるが、恵まれた天然資源よりの収入を有効に活用して教育の普及や社会の

近代化を急ピッチで進めてきているので医療事情もそれに伴い改善されてくることが期待される。

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付録 1. 今後のナイジェリア赴任者への忠告

以前に東南アジア・アフリカ等での生活経験のある方は別として、海外生活始めての方は勿論、多少欧米の経験のある方にとってもナイジェリアの生活のイメージは、あまりはっきりしたものではないと思われるので、差出がましくも、現地での体験にもとずき若干の「忠告」を試みた。

1. 言葉。勿論専門家として指導にあたるには英会話が必要で、ある程度練習をして出かける訳であるが、通じない。Professor や Lecturer クラスの入選との話はまだ通じるが、Junior Worker クラスになるとてんでわからない。これは致仕方ないことで、ナイジェリア人にとって英語は公用語ではあるが、尙くまで外国語、一步都会から離れたらもうその土地の言葉とハウサ語以外通用しなくなるというわけ。だからこっちの英語も相手の英語もお互いにごいのを話しているのだから通じないのも当然。郷に入れば郷に従えでとにかく慣れるより仕方ない。学生位になるとこちらの云うことは何とか判ってくれるが、向うの英語が、King's English を二ひねりくらいひねったような英語なので、なかなかわからない。3ヶ月もすれば、慣れてくる。言葉も通じないし、大分様子が日本とは異なるのでカウンターパートに頼んで、どこへ行くにも付添って貰うのが安全。物乞いが多く物売りもしつこく付纏ってくるので No thank you , で相手にしないこと。付添いもなく土地の事情も知らない外人とみると実に様々な人間がよってくる。従って落ち着いて悠々と振舞っている方が無難。言葉のあまり通じないうちに銀行口座開設とか、荷物の通関とか色々出歩く用が多いが、必ず付添人に同行して貰い、こちらの考えていることを充分に付添人に説明して納得のゆく様にしておくことが肝要。また、こちらの入選の仕事は日本人には、無責任で要領が悪くてスローモーターで腹の立つことが多いが、日本のベースの倍位のゆっくりさで出来たら上々と思っている方がよい。

2. ナイジェリアは確かに不健康地であるので、出発前に O T C A の健康ハンドブックや最近前在ナ日本大使館勤務の正木繁ドクターの著した“アフリカへの赴任又は旅行する場合の医療衛生上の心得”、“アフリカへの赴任者又は旅行者の到着後の医療衛生上の心得”、“マラリアに関する予備知識”、(外務省印刷物なので O T C A でも入手出来る筈)を熟読して準備をして赴任することをお薦めしたい。尚、イバダン大学では、大学構内の dispensary での医師による診察投薬は無料。更に大学病院へ更に詳細な検査や治療の為に refer された時も無料。入院した時だけ実費をとられるとのことであった。勿論慣れる迄は、付添人を同行した方がよい。風邪薬、メンソレ等は薬局 Chemists で売ってるが、抗生物質等は市販していない。

3. 乗用車。 現地で購入すると大体排気量が1cc. が1,000円位で新車を買える。ナイジェリアでは1972年から車は右側通行に変わったので右ハンドルの車の持込みは禁止している。外交官待遇で関税免除で持込めるのだが、この場合は政府相手に大体減価償却率年30%位でしか売れない。持込んで売りたい時は従って関税を始めから払う方がよいということになるが、関税は新車で50万円以下は25%, 95万円以下で50%, 190万円以下で100%位だそうである。自家用車なしの生活は特に家族連れの場合不可能に近い。市内では、Taxiや公営バスが使え、多数のVWのミニバスが白バスとして営業しているが、後者は使い慣れる迄どこへ行くかよくわからない。タクシーは値段の交渉をして乗るが、これも慣れないうちは難しい。大都市間は、少なくとも各州の州都にはNigerian Airway が飛んでいるし、グレイハウンドバスか汽車旅行が出来る。運転手を一日4~5千円で儲けて(これで食事代も泊料も入っている)自家用車で旅行するのが、便利だが、ナイジェリアの道路は交通事故の危険度が高いので、スピードを出さない様時々注意した方がよい。ナイジェリアで運転免許を取るには、日本の免許証があればこれを英訳したものと共に持参すれば、二日で発行してくれる。新しく取るには、先ず路上練習許可証を貰い3ヶ月毎に2回書き換え合計6ヶ月の路上練習後簡単な口頭試問と実技の試験があり、パスすればとれる。比較的容易だが後退等英国の運転練習書を手に入れこれをマスターすることは必要。勿論路上練習中は単独運転は出来ない。故障修理は慎重に選んで頼まないと部品を古いのにとりかえられたりする。
4. 郵便。 まずびっくりすることは、ナイジェリアにはポストがないことである。従って一々郵便局まで行かねばならない。次に驚くことは局員の職務意識の低さである。仕事は遅く、不正確でその上横柄とくるから教いがない。同じ小包みを三つの局で聞いてみたところ三局とも違う料金を請求するのには唖然とした。第三に驚くのは、信頼度の低さである。大切な郵便物は、全て書留便にした方がよい。筆者からの日本への手紙三通、日本よりの手紙二通は途中で蒸発してしまった。日本との間で航空便は1~2週間かかるが、船便は3ヶ月から5ヶ月かかる。日本からの小包みは、関税をかけられる。二千元位の子供の衣類に千円から二千元も関税をかけられた。
5. 銀行。 派遣の手引きにあるように赴任した専門家は先ず銀行に滞在費及び現地業務費を受取る口座を開かねばならない。普通、日本又は欧米の銀行に当座預金口座を設けてここへ送金を受けておき、一方ナイジェリアの市中銀行に口座を設けてこの二つの口座の間で必要なだけナイジェリアへ送金するという二段構えにする。これには、安全性と、ナイジェリアへの外貨の出入れ

に伴う高い手数料を避ける意味がある。専門家の場合、収入は外貨のみであるから始めから External Account を設ける方がよい。中央銀行の証明があるということで一週間位かかるが、任期を終えて残金の預金を外貨に変えて持出すのが楽になる。筆者の場合何も知らずに Barclay Bank, Nigeria に Current Account を開設してしまい大分損をしたので外貨系の会社が他にも幾つかあるから下記のことを詳しく聞いて検討した上で決定する様お薦めする。ナイジェリアでの当座預金 Current Account はあまり意味がない。というのは信用取引が出来ず現金取引が主で、小切手は殆んど利用価値がない。(イバダン大学内の大学及びスーパーマーケットの支払い及び大商店や同系の銀行の他支店でマネジャーに依頼する現金化のみ小切手を使えた。) 筆者は東銀のロンドン店に当座預金口座をもち、その小切手帳を発行して貰ったが、これを換金することは Barclay では出来なかったが、Standard Bank, Nigeria では同店に口座があればそこへ振込むことは出来るということであった。従ってもしこの方法を使えば、ロンドンから Mail Transfer しても Cable transfer してもナイジェリアの口座に入金するまで一ヶ月近くも待たねばならない不便さは消失する。その上帰国に際し Traveler's Check の発行手数料を比較したところ Barclay では1% 多もとるが Standard では常識通り1% ということであったし、Barclay からの外貨への換金は英ポンドにしか出来ないということであった。

尚、1973年からナイジェリアの通貨はスターリング制、1ポンド=20シリング=20×12ペンスから新通貨になる。1Naira = 100Kobos = 現行10シリング ≈ 約470円。

- 衣食住。 ナイジェリア滞在中同じイバダンの政府の農業研究所に一家族、ラゴスの高等工専に二家族の O T C A 専門家が赴任していたが、官舎が、どこへ行っても間取りも同じ、付帯家具も殆んど同じであった。勿論、何段階か違うものがあるが、夫々のクラスではの話である。借料は水道料込みで一万円から二万円、電気料が大体五千円から一万円位、炊事及び家の中の掃除をする house steward 下男を備うのが常識でこれに一万から一万五千円位、一戸建の教授クラスの官舎はその他に庭師や夜警を備うのが普通で合せて五千円から一万円位というのが月々の住関係の経費になる。官舎には応接セット、テーブルセット、天井扇風機(居間のみ)、番茶機、ベッド、冷蔵庫、電気レンジ(クッカー)等がついている。ラゴス近辺を除くと暑さはそれ程厳しくないで、2~5月の暑い時期も扇風機を一台寝室用に入れるだけで凌ぐことができた。寝室の窓以外には防虫網を張ってないことが多いが、3~5万円位で大学の管轄局でやって

くれるので台所の窓も含め全部張った方が、快適だし健康に良い。カーテン、クッションカバー、電灯スタンド笠、ベッドシートや掃除用品、炊事道具そして食器類等が直ぐ必要になるが、日本の値段の倍位払う心積りでいけば、そして少々の不便を我慢する積りであれば、現地で購入できる。但し、品切れになって何ヶ月も店頭から姿を消す商品が時折あるし、細々した気の利いた小道具類はまずない。停電が始終あるので、プロパンガスクッカーを使用している人も多かった。また水質が悪く伊通器を使用する人も多かったが、飲料水や生鮮野菜等の洗浄には必ず煮沸した水を使い、ミルトンを併用して先ず健康には差支えなかった。炊事から洗濯、そして家の中の掃除までやってくれる steward は、少々高級を払っても英語が通じ前歴の良い人を備う方が安全で結局得をする様である。

電気製品もアイロンからクーラーまで何でも揃っているが、日本の定価の2～3倍位はする。テレビは政府直営で二局しかなく白黒で、放送時間も夕方の5時間位のみ。ラジオも長波は年中アフリカンビートばかり流しているの、遠方の短波放送も受信できる高感度ラジオが欲しい。FMは勿論ない。従って音楽愛好家で長期赴任者は、小型のステレオ位持参の方が精神衛生上良いかもしれない。通常の乾電池はあるが、アルカリ乾電池等特殊なものはない。家庭配電は230Vであるので小型のトランスを持参する事を、日本から電気用具を持参する人にはお薦めしたい。但し電力消費の大きいものは、日本で230V用を特注した方がよい。

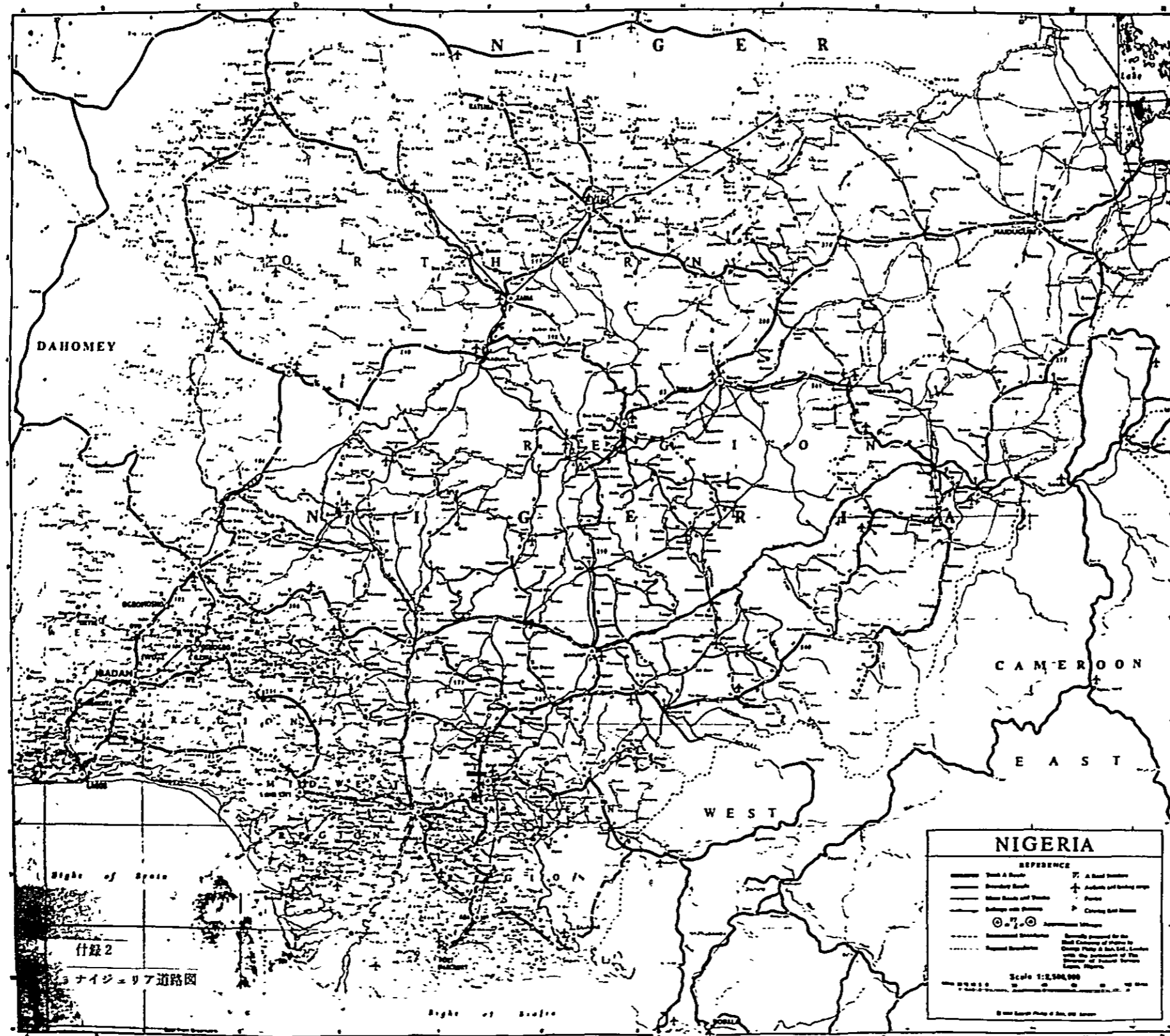
衣生活は、日本の初夏から盛夏の見当でよいが、雨期の夜、11～12月のハマターンの季節には、毛布も欲しいし、カーディガンの一枚位は必要。概して衣料品も1.5～2.5倍位高価な上、質の良いものは、極上の質沢品は別として少ない。Tailorが多勢いて仕立てさせてもよいが、一般に胸が悪く、少しでも洋服のできる人はミシンを持参するか、現地で借りるかした方が無難。但しミシン糸やミシン針の予備を充分持参すること。

食生活の方も日本食にこだわらなければ、一応西欧並みの食事はとれる。米はナイジェリア産は、砂利の混入しているものが多いが産地と購入先を選べば、安く入手できる。少々高いが、スーパーにおいてある米はその点安心。粘りの弱いものがふつうだが、割合粘りの強い日本米に近いものもある。野菜も種類が少い点を除けばまず間に合う。園芸の好きな人は、根菜、葉菜類等を育てるのも一法。立派なキュウリやネギを育てている日本人が何人かいた。果物も種類では日本の比でなく少ないが、熱帯果物の新鮮な味はこれを補って余りある。その上安い。オレンジが1ダースで50円、パイナップル1ヶ50円といった見当。新鮮牛乳はまずないが、乳製品は豊富に輸入されている。Reconstituted Milkという牛乳が売られていたが、どういふ牛乳かよく分らなかった。味は、日本のより良い。鶏卵、牛肉、鶏肉、豚肉は十分出廻っている。但

し牛、豚肉の味は大分落ちる。水産品は、大きいスーパーで冷凍でタイヤシタピラメ、大正エビ等が買え、味もまずまず合格。化学調味料や醤油は未だ市販されていない。

7. 買物。 前項でもふれたが、生活用品は気の利いたものを除き、殆んどすべて現地で購入できるが、品切れになることが往々にしてある。食塩や砂糖等まで姿を消すので、半年分位見越して買い貯めしておかねばならない。専門家は恐らくKing away とか Leventis 等というスーパーのChain store での買物が大部分になると思うが、こういう店では、credit account を開いておくと現金買いしないで済む。始めに夫婦双方の名前で登録しておけば、どちらの署名も通じ、支払いは翌月まとめて払えるので便利である。小さな店や、現地人のマーケットで買物をする時は慣れる迄は付添いのいた方が安心。とに角、人の顔をみて1.5倍から5倍の値をつけてくる。買う方も心得たもので、妥当な値段の半分位の値をつけて両者が段々と寄せて値段を決めるのが当たり前なのである。買気はみせず2度位出直す位のつもりでいるとびっくりする位安値になることがよくある。

8. 引越荷物。 日本郵船、川崎汽船、三井船舶等の船が毎月寄港しているが約1ヶ月半から2ヶ月かかる。別送空送貨物は一週間位でつく。しかし、実際に手許に届くのは更に後者で4週間位、前者で1ヶ月半近くもかかる。大学には、Passage Office という部局があり、大学関係者の赴任、離任、旅行、資材の発注、受取りまで何でもやってくれる所があり、民間の代理店を通したり又は直接税関での手続き等を代行し、運んでくれる。大使館を通して結局は民間代理店に依頼することになるから、時間的には同様であるし、その上代理店に手数料を取られる。その点、大学の場合無料でやってくれることもある。いずれにしてもBill of Lading が到着したら直ちに行動を始め、自身で税関まで同行する位の気持でいると、案外早く入手できるらしい。大学に頼む場合もMinistry of Economic Development and Reconstructionからの免税申請の手紙を大使館に頼んで貰っておき、大学のPassage Officeに頼んだ方がよい様である。



付録2
ナイジェリア道路図

This map is published by the Geographical Institute of the Ministry of Education, Lagos, Nigeria. It is based on the latest available information and is intended for general reference. The map is published under the authority of the Government of Nigeria.

付録 3. 参考文献及び資料について

ナイジェリアを含みアフリカ諸国は新興国として国際的にも重要な地位を占めてきた為もあり、最近特に多数の紹介書や研究書が出版されているが、いざ調べてみようとするとなりに日本では案外手掛りが見つみにくい。現地に赴任してはじめて、現地の大使館で参考書を紹介され一夜漬けで現地事情を仕込まねばならなかった苦い経験から、今後赴任される方又は、ナイジェリアの事情に興味をもつ方の少しでも役に立てばと思い、不完全なものではあるが、まとめてみた。尚、1の「ナイジェリア連邦共和国」も親切な参考書紹介をしているので同時に参照していただきたい。

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通し番号に○印を付したものはOTCA又はアジア経済研図書室にあり、*印のものは在ナ日本大使館、△印は筆者所有のものである。他は、イバダン大学の図書館及び阿大学の Nigerian Institute of Social and Economic Researches の図書室でみた。

以上の他、経済関係、歴史文化関係等、各分野の専門書が多数出版されているが、1967年頃迄のナイジェリア関係の出版物は、4と20に網羅されている様である。19には学術誌も含め雑誌、日誌等が網羅されている。1は既述の如くナイジェリア赴任者には必携の好著で、現地での生活にすぐにも役立つ情報が多く且つ社会、歴史全般にわたって概説してある。2はナイジェリア政府の公式紹介として、3～6は、歴史と内戦前までの現情紹介として1より詳細なものであり、特に3を推薦したい。最新情報としては、2と14が2年前位、10、11、13は1年前位までの情報がもられ、より最近の情報は11の出版者の出しているWeekly, Monthly レポートや日本の月刊誌48、そして現地の新聞、雑誌類となろう。7～9、12、15、16は地誌として、21、22、23は一般的読物として、現地の人達の生活、考え方を紹介していると思う。教育関係の専門書も他に多数あるが、現状紹介書として22～25を掲げた。

医療の現状の詳しい紹介書としては、まとまった好書がなく、強いてあげれば、30であるが、主として1960年以前の医療の歴史を紹介している。極言すると、如何に英国植民者を主として西欧人がナイジェリアの医療発展に貢献してきたかの記述に主眼をおいているともいえるが、実際の医療体制成り立ちを理解するには必読の書である。他に2、3、26～28、30～40等そして14、29、34、45～47から総合するよりない。1968年以降の28は未だ刊行されておらず、実際、州制布行以前から、医療はregionalなものとして各region毎、州制布行後は各州の管轄に入っているので、州毎の施策や医療機構、統計(46、47)を見る必要がある。然し、これ等の州政府刊行物は一般に貧弱でその数値の信用度も低い。西部州とラゴス州は比較的行政機構も整っており、33と34は西部州、26や14に引用されている数値はラゴス州のもので比較的整っている。各州の第一次五ヶ年計画、国の第二次発展計画の医療部門の将来計画から逆に現状を推察する資料となろう。(45、46、付録4)

31は現イバダン大学医学部長の著者が、数回に亘り新聞に寄稿した論説をまとめたもので当面する医療問題に関して一読に値しよう。32、37、39は同国の医学研究現況紹介に、39～44は現地の医学関係の知人にリストアップして貰った熱帯医学の定評ある参考書としてあげた。

他に、WHOやUNICEF等、国際的機構の調査報告書や年報等も見逃せない資料であると思う。

ナイジェリアの主な図書館としては、西アフリカ最大というイバダン大学図書館を始めとし、各大学の図書館、国立図書館(ラゴス市ラゴス島)、医学中央図書館(Nigerian Medical Council, ラゴス市ヤバ)等が挙げられよう。

付録 4. 1970-74 Development Plan 抜粋
Federal Republic of Nigeria

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TABLE 5
TOTAL PUBLIC SECTOR CAPITAL INVESTMENT, 1970-74

Sector	Total	Federal Government	All States	Romeo-Flintone	East-Central	Kanso	Kansas	Levee	Mid-Western	North-Central	North-Eastern	North-Western	Rivers	South-Eastern	Western	Credit	
																1970-74	1970-74
A. ECONOMIC																	
1. Agriculture	107,663	30,835	76,828	2,924	10,319	16,739	2,370	3,000	4,100	3,219	4,130	3,982	4,267	7,655	14,053		
2. Livestock, Forestry and Fishing	25,004	3,188	21,816	0,902	2,250	1,367	0,631	2,755	2,410	0,816	2,353	1,847	2,109	0,807	3,569		
3. Mining	2,586	40,817	45,232	1,950	5,650	3,500	2,156	2,460	5,363	2,568	4,031	2,527	4,033	3,009	8,005		
4. Industry	86,099																
5. Commerce and Finance	18,890	10,970	7,920	0,100	1,600	1,540	1,700	0,200	0,430	0,250	0,100	0,200	0,200	0,100	1,500		
6. Fuel and Power	45,325																
7. Transport	242,377	167,113	75,466	7,010	5,001	5,500	3,350	4,000	8,691	6,321	9,970	3,310	7,490	6,210	8,413		
8. Communications	42,691																
9. Recreation and Rehabilitation	10,000																
10. Sub-Total	580,777	353,495	227,282	12,846	24,890	28,646	10,207	12,415	21,194	13,174	20,584	11,866	18,099	17,781	35,540		
B. SOCIAL																	
11. Education	138,803	49,122	89,771	5,245	8,000	8,100	2,608	3,809	6,763	9,142	4,400	7,415	5,575	4,214	24,500		
12. Health	53,811	10,130	43,681	0,885	7,000	4,910	3,211	2,500	4,202	3,041	3,133	4,275	3,212	1,700	5,612		
13. Information	10,921	4,782	6,139	0,400	1,000	0,030	0,100	0,100	0,500	0,180	0,839	0,500	0,500	0,500	1,500		
14. Labour and Social Welfare	11,974	3,004	8,970	0,225	0,500	1,033	1,332	0,900	0,376	0,964	0,882	0,740	0,418	0,400	1,200		
15. Town and Country Planning	19,075	5,287	13,788	0,300	1,750	1,600	0,500	0,500	0,688	2,100	0,600	0,200	1,050	2,000	2,500		
16. Water and Sewerage	51,696																
17. Sub-Total	284,380	72,325	214,055	11,378	21,663	20,173	10,789	12,173	16,229	22,960	12,561	15,163	13,255	10,854	46,857		
C. ADMINISTRATION																	
18. General Administration	52,370	23,432	28,938	2,203	4,251	3,246	1,808	2,537	1,070	1,506	2,693	3,086	2,603	0,935	3,000		
19. Defence and Security	94,360	94,360															
20. Sub-Total	148,730	119,792	28,938	2,203	4,251	3,246	1,808	2,537	1,070	1,506	2,693	3,086	2,603	0,935	3,000		
D. FINANCIAL																	
21. Financial Obligations	9,482	9,482															
22. Sub-Total	9,482	9,482															
23. Nominal Total	1,025,169	533,094	470,275	24,467	50,804	52,065	22,804	27,125	38,493	37,640	31,838	30,115	33,957	29,570	85,397		

TABLE 6
TOTAL PUBLIC SECTOR CAPITAL INVESTMENT, 1970-74

Sector	Total	Federal Government	All States	Bumai-Plateau	East-Central	Kanso	Kivers	Lagos	Mid-Western	North-Central	North-Eastern	North-Western	Rivers	South-Eastern	Western	Percentage Distribution	
A. ECONOMIC																	
1. Agriculture, Forestry and Fishing ..	10.5	5.5	16.3	11.0	20.5	32.1	10.4	11.1	10.6	8.5	11.4	13.2	12.5	25.9	16.5		
2. Mining ..	2.4	0.6	4.6	3.4	4.4	2.6	2.8	10.2	6.3	2.2	6.6	6.1	6.2	2.7	4.2		
3. Industry ..	8.4	7.3	9.6	7.4	11.1	6.7	9.4	9.1	13.9	6.8	11.3	8.4	11.9	10.2	9.4		
4. Commerce and Finance ..	1.8	2.0	1.7	0.4	3.2	3.0	7.5	0.7	1.1	0.7	0.3	0.7	0.6	0.3	1.7		
5. Fuel and Power ..	4.4	8.2	—	—	—	—	—	—	—	—	—	—	—	—	—		
6. Transport ..	21.7	10.1	16.1	26.5	9.8	10.6	14.7	14.7	23.1	16.8	27.8	11.0	22.1	21.0	9.8		
7. Communications ..	4.2	7.7	—	—	—	—	—	—	—	—	—	—	—	—	—		
8. Reconstruction and Rehabilitation ..	1.0	1.8	—	—	—	—	—	—	—	—	—	—	—	—	—		
10. Sub-Total ..	56.7	31.7	48.3	48.7	49.0	55.0	44.8	45.8	55.0	35.0	57.4	39.4	53.3	60.1	41.6		
B. SOCIAL																	
11. Education ..	13.5	8.8	19.1	19.8	15.7	15.6	11.4	14.0	17.6	24.3	12.3	24.6	16.4	14.2	28.7		
12. Health ..	5.2	1.8	9.3	3.4	13.8	9.4	14.1	9.2	10.9	8.1	8.7	14.2	9.4	3.7	6.6		
13. Information ..	1.1	0.9	1.3	1.5	2.0	0.1	0.5	0.4	1.3	0.5	2.3	1.6	1.5	1.7	1.8		
14. Law, Order and Social Welfare ..	1.2	0.5	1.9	0.9	1.0	2.0	3.8	3.3	1.0	2.5	2.5	2.4	1.2	1.4	1.4		
15. Town and Country Planning ..	1.9	1.0	2.9	1.1	3.4	3.1	2.2	1.9	1.8	3.6	1.7	0.7	3.1	6.8	2.9		
16. Water and Sewerage ..	5.0	—	11.0	16.3	6.7	8.6	13.3	16.1	9.8	20.0	7.5	6.8	7.4	6.9	13.3		
17. Sub-Total ..	27.9	13.0	45.3	43.0	42.6	38.8	47.3	44.9	42.2	61.0	35.0	50.3	39.0	36.7	54.9		
C. ADMINISTRATION																	
18. General Administration ..	5.1	4.2	6.2	8.3	8.4	6.2	7.9	9.3	2.8	4.0	7.5	10.3	7.7	3.2	3.5		
19. Defence and Security ..	9.4	17.4	—	—	—	—	—	—	—	—	—	—	—	—	—		
20. Sub-Total ..	14.5	21.6	6.2	8.3	8.4	6.2	7.9	9.3	2.8	4.0	7.5	10.3	7.7	3.2	3.5		
D. FINANCIAL																	
21. Financial Obligations ..	0.9	1.7	—	—	—	—	—	—	—	—	—	—	—	—	—		
22. Sub-Total ..	0.9	1.7	—	—	—	—	—	—	—	—	—	—	—	—	—		
23. Nominal Total ..	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0		

TABLE 4
FEDERAL AND STATES CAPITAL EXPENDITURE ON EDUCATION, 1970-74
£ million

Level of Education	1970-71	1971-72	1972-73	1973-74	Total
A. PRIMARY					
Federal	1,320	2,020	1,520	1,600	6,460
States	5,019	9,295	8,657	4,507	27,478
TOTAL	6,339	11,315	10,177	6,107	33,938
B. SECONDARY					
Federal	1,500	1,800	1,800	1,900	7,000
States	4,689	6,428	6,186	4,097	21,400
TOTAL	6,189	8,228	7,986	5,997	28,400
C. TECHNICAL					
Federal	0,620	0,860	0,560	0,600	2,640
States	1,994	2,842	2,808	2,007	9,651
TOTAL	2,614	3,702	3,368	2,607	12,291
D. TEACHER TRAINING					
Federal	0,600	0,600	0,600	0,200	2,000
States	1,969	3,427	3,252	2,547	11,195
TOTAL	2,569	4,027	3,852	2,747	13,195
E. UNIVERSITY					
Federal	5,000	6,000	7,000	7,500	25,500
States	4,611	4,152	3,995	2,760	15,518
TOTAL	9,611	10,152	10,995	10,260	41,018
F. OTHERS					
Federal	1,526	1,665	1,385	0,946	5,522
States	1,194	1,805	0,975	0,535	4,529
TOTAL	2,720	3,470	2,360	1,501	10,051
TOTAL	30,042	40,894	38,738	29,219	138,893

CHAPTER 24
HEALTH

The importance of health services in the social and economic progress of a people is increasingly being appreciated. A healthy population is an economic asset since the assured supply of a strong and healthy labour force is an essential factor in development. Health services must therefore, keep pace with the growing needs and resources of the people: for if they lag too far behind, the whole community is bound to suffer. For this reason, development in the health sector must be geared to targets which will ensure that health services and amenities are within easy reach of the people.

I. Recent Performance

During the last Plan period, health was a subject in the concurrent legislative list with both the Federal Government and the Regional (States) Governments exercising defined powers within their areas of direct administrative control. Thus, the Federal Government had direct responsibility for all aspects of health services in the then Federal territory of Lagos, while the former Regional Governments were responsible for such services in their administrative areas. With the creation of States in 1967, each State (including the Lagos State) assumed direct responsibility over health matters in its areas of control. The Federal Government retained such national functions as the maintenance of standards of practice in medical and allied professions, training of health personnel, health legislation, advisory and inspection services, medical certification, laboratory and chemistry services, and communicable diseases control.

A total capital expenditure of £7,46 million was incurred by all the Governments in the Federation during the last Plan period out of the planned estimate of £17,076 million. The Federal Government spent £2,695 million on its health programmes against the £10,304 million proposed. The Regional Governments together incurred a total capital expenditure of £4,465 million on their programmes out of the estimated total sum of £6,772 million. This sector showed one of the lowest levels of capital expenditure in relation to the planned estimate.

In physical terms, many of the planned projects were executed. These achievements were much more obvious in regard to federal programmes. Projects executed by the Federal Government included the Lagos University Teaching Hospital, reconstruction of the Lagos General Hospital and the establishment of health centres. The proposed National Institute of Preventive Medicine and the planned expansion of Public Health Laboratories did not, however, materialise.

The Regional programmes placed greater emphasis on the curative services. In this connection, all the former Regions undertook the construction of Hospitals in their various administrative areas. These impressive Hospital Building Programmes in the former Regions were however, in most cases, not accompanied by adequate supply of essential complementary inputs such as medical manpower, drugs and equipment. The real impact was therefore not considerable.

2. Policy Issues and Objectives

With the rapid growth in population, better education and increasing appreciation of health needs, demand for health services has far outstripped the rate of expansion of health facilities. The situation tends to deteriorate because health programmes undertaken in the past had not sufficiently taken into account the real nature and magnitude of the problems. Experiences

during the last Plan period indicate that no sooner were new health facilities provided, than it became clear that they were grossly inadequate. This tendency to under-estimate the magnitude of the problems appear to have influenced the very low levels of expenditure on health programmes. Not only was allocation deficient, its distribution between curative and preventive services did not take into consideration the nature of the problems involved. Where preventable diseases account for a large proportion of morbidity and mortality, as in Nigeria, preventive services should be the focus of health policy.

In spite of the fact that training programmes featured prominently in the last Plan, shortages continue to be acute in the supply of some essential health personnel. Shortages of doctors and trained nurses has continued to plague the administration of health services throughout the country. The doctor/population ratio is currently estimated to be 1:30,000. The ratio in some parts of the country is even as low as 1:100,000. By any standard, this reflects a most unsatisfactory situation. Not only is it desirable to increase appreciably the stock of doctors and para-medical personnel, it is also essential that they should be more evenly distributed in the States.

The creation of States has unmasked some of the health problems in the country, which were hitherto not apparent. The needs of the various health administrations in the country in terms of finance, manpower and materials have forcefully come to the fore and now demand urgent attention.

One of the greatest health problems facing the nation is the very poor standard of management of the hospitals. Fine and well equipped hospitals of a decade ago would in most cases become eye-sores today due largely to poor organisation and management in most of the hospitals. The existing structure and nature of hospital services in the country still follow a pattern designed under the colonial administration.

Whereas the colonial medical services were established mainly to cater for the needs of the civil services, the health facilities of today are among the vital social services demanded by the entire community. There is, therefore, the need to examine whether the present system by which hospitals are controlled and administered on day-to-day basis as government departments under traditional rules, is still adequate to cope with the current massive requirements of the population.

Programmes within the health sector are in general terms designed to re-establish health services disrupted during the civil war and to develop and expand existing medical and health services, to the extent that will bring them more and more within easier reach of the entire population. In this connection, the greatest emphasis will be given to preventive measures designed to reduce to the minimum, the incidence of deadly diseases in the various communities.

The specific policies are:

(i) Implementation of measures to restore health facilities and services destroyed or damaged during the civil war.

(ii) Expansion of programmes for the maintenance of environmental sanitation. Realising that the prevalence of most infectious diseases in the community has a direct correlation with poor and insanitary environment, the various health authorities will intensify their effort in the establishment and maintenance of a healthy environment. To this end, community health education schemes are to be expanded to cover more urban as well as rural communities.

(iii) Institution of measures to control communicable diseases which may be widely prevalent in particular communities. In this connection, the existing Federal and State programmes on epidemic control are to be expanded to include other diseases beyond small-pox and measles.

(iv) Development of medical manpower through the provision of appropriate training programmes and facilities. The Federal and State Governments are committed to schemes involving the training of doctors, nurses and other para-medical personnel needed for the efficient operation of health services. During the plan period, Government will expand facilities in the existing Medical Schools and Teaching Hospitals in the country, in order to ensure much greater out-turn of doctors and other personnel from these institutions. In this connection, Government will establish at least a medical centre or teaching hospital in each of the States in the Federation. Such hospitals will be fully integrated with the expanded Medical Schools system in the country. Wherever possible, general hospitals will be upgraded to provide extension facilities for the expanded system of Medical Schools and Teaching Hospitals. This will extend and improve the standard of medical practice and services in all parts of the Federation. The total effects of the training programmes for doctors are expected to achieve a minimum effective doctor/population ratio of 1:20,000 by 1980.

(v) Re-organisation of Hospital Services. Measures are to be taken to re-organise the management and administration of Hospitals to make them more effective institutions for providing curative services to the population. The measures will include the provision of mobile hospital facilities which are vital in carrying medical services to the rural communities. In this connection, efforts will be concentrated on adequate staffing of, and supply of materials and equipment to the Hospitals.

(vi) Creation and development of research facilities and activities. Government will continue to support the establishment of research programmes which are geared to the solution of acute health problems in the country.

(vii) Maintenance of good health standards. The Federal Government will, with the co-operation of the State Governments, continue to ensure the maintenance of the highest standards in the importation, manufacture and administration of drugs. Local manufacturing facilities are to be expanded.

3. Programmes and Projects

The total allocation to the Health sector during the Plan period is £53,811 million for all the Governments. Out of this sum, £10,130 million is in respect of capital expenditure programmes to be undertaken by the Federal Government, and the balance of £43,681 million is allocated among the twelve States.

(a) *Federal*—The main features of Federal health programmes are projects in the areas of epidemic control, training and research. The Small-pox Eradication and Measles Control Programme, which was started in 1966, is to continue during the Plan period. The programme will be extended to cover other common communicable diseases. An allocation of £0.8 million has been made for the programme. The major training programme consists of projects involving the expansion of the Medical Schools at Ibadan, Lagos and Zaria which have received a total allocation of £8 million. There are also other projects involving the expansion of Training Schools for various para-medical personnel and the establishment of an Institute of Public Health for which a total allocation of £0.8 million, has been made.

(i) *Epidemic Control*—This project is designed to control smallpox and measles. Steps will be taken to continue and expand the existing programmes for the control and eradication of communicable diseases.

(ii) *Drug Quality Control Laboratory*—Nigeria's foreign trade in Pharmaceutical products has increased substantially in recent years. This has been accompanied by the establishment of a number of Pharmaceutical Laboratories in the country. There is now the danger of a great influx of unregulated medicaments in the country. Investigations have revealed that

TABLE 1
FEDERAL CAPITAL EXPENDITURE ON HEALTH PROGRAMS,
1970-74

Project	£ million					Total
	1970-71	1971-72	1972-73	1973-74		
1. Epidemic Control—Smallpox, Infection and Measles Control	0.100	0.100	0.300	0.300	0.800	
2. Drug Quality Control Laboratory	—	0.010	0.020	0.020	0.040	
3. Expansion of Drug Manufacturing Laboratory	0.020	0.010	—	—	0.030	
4. New Chemistry Laboratory and Equipment	0.050	0.050	0.025	—	0.125	
5. Expansion of Federal Training Schools: (a) School of Radiography and Equipment	—	0.030	0.030	0.030	0.090	
(b) School of Medical Laboratory Technology	—	0.010	—	—	0.010	
(c) School of Dental Hygiene	—	0.020	0.025	—	0.045	
(d) School of Dental Technology	—	0.020	—	—	0.020	
(e) School of Physiotherapy, Building and Equipment	—	—	0.030	0.030	0.060	
(f) Dispensing Assistants Training School—Building and Equipment	—	0.010	0.020	—	0.030	
6. Expansion of Teaching Hospitals	2.000	2.000	2.000	2.000	8.000	
7. National Institute of Public Health	—	0.200	0.300	—	0.500	
8. Rabies Vaccine Laboratory	—	0.050	—	—	0.050	
9. New Equipment for Yellow fever and Smallpox Vaccine Laboratories	0.010	0.010	—	—	0.020	
10. College of Nursing (Post Graduate)	—	0.050	0.050	0.050	0.150	
11. Central Medical Library	—	0.020	0.040	0.040	0.100	
12. Quarantine Station at Apapa	—	0.010	—	—	0.010	
13. Health Centres at Apapa (for Seafarers)	—	0.010	—	—	0.010	
Total	2.190	2.630	2.840	2.470	10.130	

a number of foreign firms have taken advantage of the country's limited facilities for drug assessment in flooding the domestic market with cheap and sometimes dangerous drugs. The establishment of a fully equipped laboratory will assist in checking the importation and marketing of inferior drugs, thereby safeguarding the health of the citizens.

(iv) *Expansion of Drug Manufacturing Laboratory*—There is no existing Drug Laboratory in the country which has been serving a very useful purpose. The laboratory will be expanded. New plant and equipment will be introduced in order to increase efficiency and cope with the increasing demand on its services. It will generate savings of foreign exchange if more and more of the drugs required in hospitals are manufactured locally.

(v) *New Chemistry Laboratory and Equipment*—The present laboratory which is housed in a small apartment in the Federal Ministry of Health headquarters has remained static since its inception. With the expanding growth in the food market and the unfortunate rise in crime, the existing laboratory is manifestly unable to cope with the demand from both the public and private sectors. It is especially dangerous to house explosive chemicals in normal and crowded offices. With the building of a new block for staff and well equipped stores for the protection of chemicals, the Chemistry Division of the Ministry will be better able to discharge its services.

(vi) *Expansion of Federal Training Schools*—These schools are complementary to the Medical Schools and Teaching Hospitals. They include facilities for the training of Medical Technicians, whose services are so essential to the promotion of public health. The School of Radiography has been poorly accommodated at the General Hospital without sufficient scope for expansion to meet the demand of the various hospitals in the country. The School of Dental Technology and the School of Dental Hygiene have been run in a small apartment in the Lagos General Hospital. The School of Dental Technology will now take over the whole site of the two schools to make room for required expansion and modernization. The School of Dental Hygiene will then be accommodated on an additional floor to the existing building. New building and equipment for the School of Physiotherapy are needed at Igbobi. With the growth of Rehabilitation Centres for the care of the disabled, the need for the expansion of the existing school can hardly be emphasized. The School of Dispensing Assistants has been accommodated hitherto in the Pharmaceutical Registry. A full School will now be established to serve expanding Pharmaceutical needs, increasing demands for the training of a new breed of dispensing assistants have been made by the newly created States, especially in the North.

(vii) *Expansion of Medical Schools and Teaching Hospitals*—Progress has been rather slow in the expansion of Teaching Hospitals to cope with the expansion of Medical Schools in response to increasing demand for high-level health personnel. Not much was spent on the programme during the 1962-68 Development Plan. For example, out of the £2.05 million voted for the University College Hospital at Ibadan under the Plan, only £0.3 million was in fact spent by the end of the period. In the case of Lagos University Teaching Hospital, there were difficulties in reaching agreement on the scope and design of the project as an integrated programme; and this led to a substantial shortfall in actual capital expenditure. During the current Plan period, a sum of £8.0 million has been set aside at the rate of £2.0 million per annum to be expended on the extension of appropriate physical facilities to Teaching Hospitals. Of the estimated sum of £25.5 million allocated in Chapter 23 to the National Universities Commission for the expansion and development of University education, about £2 million will be devoted to the expansion of the new Medical Schools system.

(viii) *States*—The States programmes and projects in the Health sector are set out in Table 2. In terms of financial allocation, most of the States are still concentrating on the curative aspects of the health service, although Kenia State seems to be putting some emphasis on Public Health services. There is also an increasing effort by the State Governments in the direction of more and better training for health personnel of all categories.

CHAPTER 8

HEALTH

It is aimed:

(i) to place greater emphasis on preventive services like control of communicable and infectious diseases, maternal and child health, environmental sanitation, nutrition, and health education;

(ii) to train as large number of the indigenes of the State as necessary and as far as possible, by establishing training institutions and by bringing the existing ones to appropriate levels of efficiency;

(iii) to provide rapid expansion of health services in rural areas through the network of sub-centres/dispensaries, rural health centres, and referral hospitals;

(iv) to establish health education and nutrition service in the State.

1. *New Hospitals.*—This project provides for the building of a new consultant hospital at Sokoto, and four cottage type hospitals at Talata Mafara, Argungu, Koko, in Sokoto Province and at Kagara in the Niger Province. Existing hospitals at Kontagora and Yelwa will be taken over by the Government, or new ones will be built.

2. *Improvements to Existing Hospitals.*—There are seven Government and three Voluntary Agency Hospitals in the North-Western State. Five of them require modernisation and extension.

3. *Tuberculosis Wards.*—It is planned to build a Tuberculosis Ward and provide Tuberculosis equipments in each of the seven hospitals in the State.

4. *Improvements to Hospital Laboratories.*—The existing laboratories are inadequate for the increasing demand for diagnosis of human diseases. It is intended to provide more laboratory equipment and extend the buildings.

5. *New State Laboratory.*—A State Laboratory will be located near the new Sokoto Hospital which will offer technical advice to the Hospitals and Health Centres within the State. It will carry out complicated tests and elaborate investigations and also train laboratory technical personnel.

6. *Psychiatric Wards and Infirmeries.*—There is only one town, Bida, in the whole State which has psychiatric facilities and an asylum. The Hospitals, at Sokoto, Birnin Kebbi, Gusau and Minna will be provided psychiatric facilities. Infirmeries will also be added at Sokoto and Minna.

7. *Rural Health Centres.*—Twenty-four Rural Health Centres will be set up to implement the Basic Health Service Programme. These centres will be located as follows:—

SOKOTO PROVINCE

Kaura Namoda
Gwadabawa
Anka
Chafe
Illela
Gwandu
Kamba
Wara

Goronyo
Tumbiwal
Sabon Buni
Dan Sarda
Jega
Dakin Gari
Kangwa
Shinkafi

NORTH PROVINCE

Mokwa
Ijaji
Agaie
Kusa

Kutigi
Zumi
Salka
Kwali

Health Education and Epidemiology.—In the North-Western State the problem of motivating people for better health is necessary. This is to educate the people about the transmission, control and prevention of common infectious diseases like tuberculosis, cholera, and diarrhoea and of the use of medical services provided by Government.

9. *Hygiene Yards and Simulium Control.*—The Staff and equipment available from the Mass Malaria Control Campaign Birnin Kebbi have been deployed on this scheme. Additional equipment and transport are necessary to make the project effective.

10. *School Health Services.*—It is intended to build at least two clinics in each town which has post primary institutions to provide school health services against small-pox, tuberculosis and other communicable diseases.

11. *Mobile Dental Clinic.*—There are at present only two Dental Centres at Sokoto and Jida, which are not enough to cover the urban and the rural population. Three mobile dental clinics will be set up.

12. *Mobile Eye Clinic.*—One Mobile Eye Clinic at Sokoto will be provided.

13. *Nurses Training School and Hostel, Sokoto.*—A school for the training of these staff will be set up.

14. *Medical Auxiliary Training School, Sokoto.*—This will provide training to Health Assistants, Dispensary Attendants and Leprosy Attendants.

15. *Capital Grants to Local Authorities and Voluntary Agencies.*—A dispensary has to be provided for every 10,000 people. At the moment the ratio is as poor as one dispensary per 70,000 people. Capital grants will be made to Local Authority dispensaries, rural health centres, provincial leprosy settlements, and many leprosy clinics.

16. *Medical Area Headquarters.*—For effective control of infectious and communicable diseases and supervision of the work of Rural Health Centres and other basic health posts it is planned to provide a Medical Area Headquarters at each hospital within the State.

CHAPTER 9

TRANSPORT, LAND AND SURVEY

Roads.—When the North-Western State was created it had 1,778 miles of road network of which 767 miles were bitumen surfaced, the remaining part being covered by gravel. These road stretches were variously constructed by the Federal Government, and the former Northern Regional Government. (Local Authority roads are not included) The State Government, in addition to maintaining State roads, maintains on behalf of the Federal Government all Federal (Trunk A) roads, the Federal Government paying to the State Government the cost of maintenance. Although some parts of the State are served by the rail line from Lagos, road transportation predominates over all other forms of transport.

The tarred roads are conveniently motorable throughout the year if well maintained even though from the point of view of quality the standard of the road stretches varies. In most places the roads have been over-used without adequate maintenance during the war. The gravel roads are in varying states of disrepair too. They too bear the imprint of excessive use without the corresponding adequate maintenance. A proportion of these can be used only during the dry season.

With the creation of States the overall priority of the State in programmes of road development has changed. Before States were created the road from Sokoto eastward to Kaduna might reasonably, though not adequately, serve the need of the north-western sector of the country. This would be particularly so in the context of the former Northern Nigeria with Kaduna as the capital. With the creation of the States and the emergence of the North-Western State an entirely new situation has arisen which necessarily affects the strategy of road development in the State. No longer is the economic and administrative requirement of this part adequately served by an eastward route from Sokoto. Increasing in importance is the route southwards from Sokoto to the Lagos-Kano road as well as to the other half of the State (Niger Province). Although administrative, commercial and general economic contact with locations to the south of the State has multiplied since 1968 there has as yet been no good road communications link between the State capital and towns in the south. A road-link which might serve this need is the Federal trunk road A-15 from Kontagora to Sokoto through Yelwa and Jega. This road which is gravel covered is in very poor condition. The construction of the road should reduce the distance from Sokoto to Lagos by road from the existing 1400 miles (via Kaduna) to 638 miles, a reduction of over 200 miles. This same road will achieve nearly a 50 per cent reduction in the distance from Sokoto to the Lagos-Kano route, reducing it from 486 miles to 264.

Resulting from the construction of this road will be a reduction in costs of transportation between the northern part of the State and the States to the south. At present consumer and capital goods from the ports only find their way to the State capital via a tortuous route through Kaduna resulting in higher unit costs of these goods. This net result manifests itself in several ways; fuel costs are exceedingly high, consequently limiting the extent to which the State resources can go in providing services that involve construction works, e.g., primary schools or rural health centres, mail services in other parts of the State cannot improve without a good and economic route. This same problem,

CHAPTER TWELVE

HEALTH

Recognizing the fact that the present Health Services are far from being adequate, it was set as one of the main objectives of the State Development Plan to tackle the problem of Health Services through a crash programme to bring it about to a reasonable standard, both qualitatively and quantitatively. On the other hand, it was kept in mind that such a programme remains within the financial possibilities of the State.

Medical Services in the State have not reached any acceptable standards. At present there are seven hospitals with a total number of 708 beds. This gives one bed to each 7650 of the population of the State. This ratio is very low compared with all standards. There are 33 Doctors in the whole State, out of which 25 are in Government Service, the rest in private practice. This gives a ratio of one Doctor to each 200,000 of the population which is again very low, and is believed to be one of the lowest in all the States. The 1970-74 Development Programme of Health aims at expanding the present medical facilities to make them available to people in all parts of the State. It is part of the programme that each Administrative Area should have at least one Referral Hospital. This would require building of new Hospitals and upgrading of some Health Centres to Hospitals. It is further planned that each District will eventually have a Health Centre; and as part of this long term policy 9 Health Centres are proposed to be built at District Headquarters during the Plan Period.

It is decided that each Administrative Area would have an Area Health Unit which would be sited in Area Hospitals. The Staff of the Unit would be engaged in preventive work and would provide constant supervision on Health Centres and Local Government Authority Health Services in the Area.

The preventive medicine has been given equal importance as the curative aspect, and the establishment of a T.B. Unit is proposed with main emphasis on the preventive aspect. Among other projects planned is the establishment of a Nutrition Unit which will conduct Nutritional Surveys, discover and analyse the ecological factors that are directly or indirectly responsible for malnutrition and, wherever possible, suggest appropriate corrective measures. Also as part of the preventive aspect, the programme provides for the improvement of Refuse collection systems in Kano, and in other Administrative Areas. In view of the present congestion at the Kano City Hospital, a modern 500 beds Hospital is to be built in Kano to cope with the ever increasing demand for medical services.

By the end of the Plan Period, the medical services in the State would have relatively improved. The number of hospital beds would have reached 1498. The number of beds per population would improve as well as the Doctor population ratio as follows :

	1969	1974
	Number	Number
Hospital Beds	708	1,498
Doctors	33	80
	Rates per Populations	Rates per Populations
	7,650	5,130
	200,000	96,000

Following are details of the programme:

1. **GUMEL AND KAZAURE HOSPITALS:** are part of the programme that each Administrative Area should have at least one Referral Hospital and construction work has already commenced on both. The remaining cost to be included in the plan for the completion of the Gumel Hospital amounts to £102,000 and for the Kazaure Hospital £97,500. Both are expected to be completed in 1974. Each Hospital will have 72 beds.

2. **KANO AND GWARZO HOSPITALS:** In 1969/70, each is provided with a Health Centre due to lack of staff required in Hospital. The project is to upgrade both Centres to Hospitals in 1971/72 when staff would be available. The design of the Health Centres is such that by adding of certain buildings, the Centre can be upgraded to Hospital. Estimated upgrading cost for each Centre amounts to £112,500 in 1970/71 and £115,000 in 1971/72. Recurrent cost of each Hospital, when in full operation by 1972/73, will reach £44,500 per annum.

3. **ADMINISTRATIVE AREA HEALTH UNITS:** Each administrative area will have one Area Health Unit. These Units will be sited in Area Hospitals. The staff of the Unit will be connected with preventive work for the area and will provide constant supervision on Health Centres and L.G.A. Health services in the area. It is intended to provide 3 Units in 1970/71 in Dambatta, Hadejia and B/Kudu. 2 Units in 1971/72 in Gumel and Kazaure and 2 Units in 1972/73 in Kano and Owarzo.

With the Units providing constant supervision, it is hoped that the standard of service will improve. It will also provide higher professional advice at peripheral level, which will avoid long journeys of sick people.

4. **KANO GENERAL HOSPITAL:** Metropolitan Kano with a population of 300,000 is served by the Govt. hospitals having a total accommodation of 370 beds.

The City Hospital, with standard accommodation of 280 beds, is approximately 40 years old and inadequate by modern standards of medical care and incapable of major improvement. It serves, apart from the population of Kano itself, large sectors of the rural population of Kano State, because of the lack of rural hospitals. Average outpatient

attendances daily are approximately 1,400 and the in-patient accommodation is always seriously overcrowded (as many as 480 patients being housed at one time).

It has therefore been decided that a new modern hospital of 500 beds should be provided. Estimated cost over the plan period is £2.5 million. The project would contain provision to facilitate future expansion. The new hospital would relieve the serious overcrowding of existing accommodation, provide much improved conditions for inpatient care and relieve the present congestion at out-patient clinics.

It would also permit the proper teaching of pupil nursing staff under the new standards of nurse training; this is virtually impossible in the present hospital with its low standards of accommodation and facilities.

5. **T. B. Unit.** As incidence of Tuberculosis in urban areas is increasing, it is absolutely necessary to improve the existing facilities. The Unit will be of curative and preventive nature, although main stress will be on the preventive aspect. The Unit will be established in 1970/71 at a total cost of £18,000 of which £10,000 is in foreign exchange. Annual recurrent cost of the Unit will be £3,500.

6. **HOSPITAL IMPROVEMENTS AND EXTENSIONS:** This is to provide, to some hospitals, additional facilities that do not exist. Maternity and Isolation and other wards will be provided in Dambatta and Gumel and all other Referral Hospitals. Cost of the project is £160,000.

7. DENTAL CLINIC:

The present limited dental facilities, which consist of one clinic will be expanded. Cost of the project is £43,000.

8. **TWO URBAN HEALTH CENTRES, KANO:** These clinics will relieve pressure on the City Hospital and provide curative and preventive medical service care in peripheral area of Metropolitan Kano. Total Capital cost of the project amounts to £250,000 over the Plan period.

9. **CENTRAL MEDICAL STORES:** This project is necessary for the storage of medical items, drugs and equipment. At present, the stores available are temporary and also inadequate. It will facilitate easy checking when stores are consolidated instead of being scattered due to insufficient accommodation, and this will cater for bulk storage of medical items and their distribution to other Units. Capital cost of the project amounts to £40,000 over the plan period.

10. **Health Services Training School:** The project is essential for the expansion of Rural Health Services. The School will train Dispensary Assistants, Rural Health Assistants, Leprosy Inspectors, Leprosy attendants and Community Nurses. The School has actually started functioning in November, 1969, in a temporary accommodation with a skeleton

10. Total cost of the Project is £150,000 to be allocated in 1970/71. Annual recurrent cost of the project amounts to £32,000.

11. **Laboratory Services :** There is at present a skeleton laboratory service in the City Hospital, serving the whole State. With the expansion of Hospitals and Industries, it is necessary to provide public Health and Chemistry with Bacteriology laboratory services. It is necessary to establish independent integrated laboratory services to meet the above-mentioned demands. It will also assist Judiciary for medical legal cases. Cost of the project amounts to £110,250 over the plan period.

12. **Eye Clinic :** There is no Government facilities for treating eye diseases in the whole Kano State. The proposed Clinic will be established in the City Hospital in 1970/71, at a total cost of £9,000 of which £3,000 is foreign exchange. The annual recurrent expenditure of the project is about £6,500.

13. **Rural Water Supply in Health Centre Areas :** Under this project, clean water will be provided in each Health Centre area as part of Health Education Programme to stress the importance of using clean water. It is likely that UNICEF will assist in providing some equipment. Annual capital cost of the project is £3,000 and recurrent cost £2,000 over the plan period.

14. **Health Centres :** The Health Centre will consist of a dispensary, health office, maternity child welfare clinic and a dormitory for 12-14 patients, all built in the same site with each Unit providing its normal services to immediate locality and also providing the necessary guidance and supervision of all L.G.A. health services. Capital cost for one Unit is £75,000 and annual recurrent cost is £17,000. UNICEF has expressed readiness to help in transport and equipment. It is intended to build 9 such Health Centres over the plan period as follows :

Year	No. of Centres	Location
1970-71	3	Dawakin Tofa, Ringim, Kura.
1971-72	2	Bichi, Wudil.
1972-73	2	Dutsi, Mallam-Maduri.
1973-74	2	Kunya, Gwarra.

As noticed, the Centres are to be located at District Headquarters, and it is planned that each District will have such a Centre in course of time. The costing of the project is £450,000.

15. **Epidemiological Unit :** This project is already under way with the help of USAID and the Federal Ministry of Health. USAID is supplying free Vaccine and some vehicles for Small-pox, Eriodactyl and Measles Control Programme. This assistance is likely to stop after 1971/72. The Federal Government gives subvention of £2,800 towards the maintenance of the Unit. The Unit will later be able to tackle other diseases. The total cost of the project is £18,000 over the plan period.

16. **Health Education Unit :** This project is necessary for the Health Education of the public and for publicity about the facilities available. In the beginning, it will start with School Children and expectant mothers. There are at present four officers under training in Beirut and UNICEF has already approved some equipment. Cost of the project is £12,000.

17. **Nutrition Unit :** This Unit is necessary for the Nutritional assessment of the community in the State; to map out malnutrition and geographical distribution of malnutrition as a public health problem; discover and analyse the ecological factors that are directly and indirectly responsible and where possible suggest appropriate corrective measures, preferably capable of being with continuing community participation.

The results of this work will lead to improved local food production, conservation, distribution and consumption for the benefit of local communities. Cost of the project is £13,500.

18. **Statistical Unit :** The Unit is required for the collection of vital Statistics as well as medical statistics from various medical institutions, which is essential for future planning and assessing efficiency of service and costing of facilities provided. Total cost of the project is £25,700. Annual recurrent cost is about £11,000.

19. **Infectious Diseases Hospital :** This Hospital is for segregation of the highly infectious disease patients. Total cost of the Hospital is £21,000 and it is to be constructed in 1970/71. Annual recurrent cost will be as low as £1,000 because staff of the General Hospital will be used.

20. **Refuse Collection Vehicles :** To purchase 7 refuse collection vehicles, one for each Administrative Area Headquarters. Total cost is £18,400.

21. **Transport and Equipment :** £15,800 is provided.

22. Grants :

This represents Government grants to :

- a) Voluntary agencies and Hospital extensions £121,000
- b) Sanitary improvement grants to Kano Township : 6,000
- c) To L.G.A. for construction of Dispensary, Maternity, Child Welfare clinics, Sub-centres, Health Posts, etc. 1,500

Total amount of the grants is £128,500.

SUMMARY: HEALTH

CHAPTER THIRTEEN

SOCIAL WELFARE COMMUNITY DEVELOPMENT AND CO-OPERATIVES

A. Community Development: The programme of Community Development Sector is designed to bring about an all-round improvement in the economic, social and cultural levels of the population through self-help techniques. The aim is to translate to the people the basic meaning of Community Development and to seek ways and means of evoking the spontaneous co-operation and co-ordination of the people's efforts to get together in solving their common problems. The basic policy therefore is:

- i) Self-help;
 - ii) Attention to people's felt needs;
 - iii) Attention to the development of the Community as an integrated whole.
- This in concrete terms includes:
- a) Adult literacy and basic social education;
 - b) Work among women and young people to deal with their special needs;
 - c) Self-help extension projects, e.g. building model villages, village water supply etc.
 - d) Low level extension education—principally in the fields of health and agriculture;
 - e) Stimulation of co-operatives and small scale rural industries.

Although these concern various organisations, the motive of the Community Development Programme is to co-ordinate all community work to create real Community spirit which is particularly vital to the progress of the rural areas. The estimated total cost of the programme is £200,000 as follows:

- j) Self-help construction projects
To help during the plan period, in constructing the following projects 20 Schools of 2 classrooms each for 25 children; 800 miles of road; 200 culverts; 20 markets; 20 dispensaries; 500 adult education quarters; 20 motor parks; 20 incinerators; 200 Latrines; 1,000 small Dams; 20 new seeds farms and vegetable gardens. Estimated cost is £70,000.
- k) Community Development Training School:
To train village level workers, village heads, Youth and women leaders and similar community development workers, with facilities in community development, professional and vocational training. Attendance 1970- 600 persons; 1971- 800 persons; 1972-1,000 persons; 1973-1,200 persons; 1974 1,500 persons. Estimated cost is £80,000.

	CAPITAL EXPENDITURE					Total
	1970/71	1971/72	1972/73	1973/74	£	
1 General Hospital Started	102,000				102,000	
2 Kazure Hospital Started	97,000				97,000	
3 Kano Hospital Upgrading	112,500	115,000			227,500	
4 Gwarzo Hospital Upgrading	112,500	115,000			227,500	
5 Administrative Area Health Units	99,000	66,000	52,550	13,450	231,000	
6 Central Hospital Kano	400	250,000	1,000,000	1,276,450	2,526,850	
7 T.B. Unit	18,000				18,000	
8 Hospital Improvement & Extension	40,000	40,000	40,000	40,000	160,000	
9 Dental Clinic	16,000	9,000	9,000	9,000	43,000	
10 Two Urban Health Centres	125,000	175,800			250,000	
11 Central Medical Store	35,000	2,800	2,500		40,000	
12 Nursing Health Service						
13 T. School	120,000	30,000			150,000	
14 Laboratory Services	67,300	33,400	9,550		110,250	
15 Eye Clinic	9,800				9,800	
16 Rural W/Supply	3,000	3,000	3,000	3,000	12,000	
17 Health Centres		150,000	150,000	150,000	450,000	
18 Epidemiological Unit	7,000	5,000	3,000	3,000	18,000	
19 Health Education Unit	6,500	2,500	3,000		12,000	
20 Nutrition Unit	11,000	2,800			13,500	
21 Statistical Unit	25,700				25,700	
22 Infectious Dts Hospital	21,900				21,900	
23 Refuse Collection Vehicles	4,600	4,600	4,600	4,600	18,400	
24 Transport	3,000				3,000	
Grants	5,000	5,000	5,000	5,000	15,000	
	27,000	27,000	37,000	17,500	128,500	
Total	1,048,000	983,000	1,320,000	1,327,000	4,978,000	

**MANPOWER REQUIREMENTS FOR THE OPERATION OF THE PROJECTS
MINISTRY OF EDUCATION**

<i>Project</i>	<i>Total</i>	<i>Professional Managerial and Administrative Staff</i>	<i>Sub Prof. and Technical Staff</i>	<i>Clerical Staff</i>	<i>Skilled Staff</i>	<i>Unskilled Staff</i>
Primars Education	2,295	63	2,232			
Grade II Teachers	2,232	-	2,232			
N.A. Education Officers	13	13	-			
Inspector of Education	50	50	-			
Secondary Education	129	129	-			
Graduate Teachers	125	125	-			
Subject Inspectors	4	4	-			
Teacher Training	316	316	-			
Graduate Teacher	312	312	-			
Subject Inspector	4	4	-			
Technical Education	23	1	22			
Graduate Teacher	22	-	22			
Subject Inspector	1	1	-			
Grand Total	2,763	509	2,254			

HEALTH

<i>Project</i>	<i>Total</i>	<i>Professional Managerial and Administrative Staff</i>	<i>Sub Prof. and Technical Staff</i>	<i>Clerical Staff</i>	<i>Skilled Staff</i>	<i>Unskilled Staff</i>
General Hospital Gumel	72	2	36	7	11	16
General Hospital Kazaure	72	2	36	7	11	16
General Hospital Rano	72	2	36	7	11	16
General Hospital Gwarzo	72	2	36	7	11	16
Administrative Area Health Unit	21	1	11	2	6	1
Central Hospital Kano	54	47	7	-	-	
T.B. Unit	38	1	10	2	12	13
Two Urban Health Centres Kano City	41	4	21	5	4	7
Central Medical Store	31	1	3	18	5	4
Eye Clinic	6	1	3	2	-	-
9 Health Centres	21	1	9	3	4	4
Epidemiological Unit	15	1	4	2	4	4
Health Education Unit	11	-	3	1	6	1
Nutrition Unit	17	2	6	1	5	3
Statistical Unit	20	2	5	7	3	3
Grand Total	565	68	236	71	93	106

J—HEALTH AND SOCIAL WELFARE.

The present level of health and medical services in this State is still below the average for the Federation. Altogether there are seven government and three mission hospitals with a total capacity of 943 beds. Of these hospitals, only the Ilorin General Hospital could provide full services in general medicine, general surgery, paediatrics, X-ray and laboratory services. The Maternity Hospital at Ilorin is also specialised for gynaecology and obstetrics services. All other hospitals are of the third category in the sense that they can provide mainly general medical services including of course emergency surgery and other minor specialised medical treatment.

Apart from medical considerations, Government has strong interests in improving the health standards of its people, since it is only a healthy population that can effectively implement a development plan. To both effects a sum of £3.22 million representing (14 per cent) of total government capital expenditure has been earmarked in the plan for the improvement of medical and health situation in the State.

Cursative Services

The entire capacity of existing hospitals in the State is inadequate. In 1969, there were 943 beds and twenty-six doctors indicating a ratio of one bed to 3,160 and one doctor to 114,000 inhabitants. (The corresponding inhabitant to doctor ratio for the whole Federation is 1:2,000). The improvement programmes on hospitals are aimed at adjusting the State bed/inhabitant ratio to 1:2,000 in 1974 (i.e. an increase of beds from 943 in 1969 to 1,700 in 1974) and the State doctor inhabitant ratio to 1:30,000 (or an increase of doctors from 26 to 100). To accomplish these targets a sum of £1.0 million has been earmarked for the building of five new hospitals during the plan period. These hospitals will be located in those divisions which as yet have no government hospitals, so as to ensure that by 1974 there would be at least a government or government aided hospital in each division of the State. These hospitals would include those proposed for Onnu-Aran, Aini-pa, Dektina, Lafagi and one in Borgu Division.

There is the need to upgrade the Ilorin General Hospital to a teaching hospital standard so as to have in the State a well equipped and well staffed hospital that could offer within the State specialist medical services to people of Kwara State. Apart from offering training facilities to doctors on housemanship and pharmacists on internship, it will be of immense advantage to the nurses and midwives and other paramedical personnel who would gain tremendously from studying or working in such an up-to-date hospital. An initial sum of £200,000 has therefore been earmarked for the first phase of improvements to the Ilorin General Hospital, and another £40,000 for the Ilorin Maternity Hospital. In addition a sum of £250,000 would be spent for the expansion of existing hospitals at Okene, Idah, Offa and Lokoja.

Medical Stores

The present system of storing medical equipments, drugs and laboratory apparatus is far from satisfactory. Medical Stores, valuable and delicate drugs are at present sometimes stored in hired buildings which are not equipped with necessary facilities. A number of the existing laboratories (usually attached to each hospital

**TABLE VIII
EDUCATION PROGRAMMES**

Project Title	Remarks	CAPITAL EXPENDITURE				
		Estimated Total Cost	1970-71	1971-72	1972-73	1973-74
1. Primary School Expansion and building of new ones.	1,200-2,000 classrooms	(a) £ 1,500,000 (b) 1,000,000	£ 350,000 200,000	£ 400,000 250,000	£ 425,000 275,000	£ 325,000 275,000
2. Secondary School Expansion and building of new ones.	204 classrooms	(a) 500,000 (b) 296,000	90,500 40,500	95,500 45,500	114,500 64,500	119,500 145,500
3. Sixth form expansion	building of new laboratories and equipments.	44,000	4,000	10,000	20,000	10,000
4. Technical Schools development	conversion of Crafts School in to full technical schools.	160,000	20,000	40,000	60,000	40,000
5. College of Technology	upgrading of existing Technical School to a full Technical College.	500,000	20,000	300,000	200,000	20,000
6. Teacher Training	Provision of laboratories facilities for 10 Teacher Colleges.	(a) 150,000 (b) 100,000	—	150,000 100,000	—	—
7. Adult Education Expansion	—	8,400	—	8,400	—	—
8. Contribution to Kaduna Polytechnic and A.B.U. Capital Projects.	—	500,000	125,000	125,000	125,000	125,000
TOTAL	—	(a) 3,362,400 (b) 2,608,400	609,500 409,500	1,028,900 778,900	944,500 744,500	779,500 675,500

(a) Total Cost
(b) Government participation

TABLE XIV
HEALTH PROGRAMMES

Project Title	Remarks	CAPITAL EXPENDITURE				
		Estimated Total Cost	1970-71	1971-72	1972-73	1973-74
1. Curative Services						
(i) Construction and equipping of 5 new hospitals	5 new hospitals at Anka, Dekina, Omu-Aran, Lafia-gi/Pategi and Borgu Division.	1,000,000	250,000	300,000	250,000	200,000
(ii) Improvement to Ilorin General Hospital	—	200,000	50,000	50,000	50,000	50,000
(iii) Improvement to Maternity Hospital	—	40,000	10,000	10,000	10,000	10,000
(iv) Improvement and extension of other General Hospitals	—	350,000	100,000	100,000	80,000	70,000
(v) Mobile Clinics	3 Clinics	21,000	—	14,000	7,000	—
(vi) Dental Centre, Lokoja	—	30,000	7,000	10,000	10,000	3,000
(vii) Laboratory Side Rooms	8 Laboratory Side Rooms	27,000	8,000	5,000	5,000	9,000
(viii) Building and equipping of State Capital Laboratory	—	64,000	10,000	27,000	10,000	17,000
(ix) Medical Stores	3 Medical Stores	40,000	10,000	10,000	10,000	10,000
(x) Other Curative Services	—	50,000	10,000	20,000	10,000	10,000

cannot make any savings because of inadequate facilities, insufficient funds and equipment. In order to remedy this unsatisfactory situation, the plan envisages the construction and equipping of State Laboratory at Ilorin, eight laboratory side rooms and three new medical stores. Total cost is estimated at £131,000.

In addition a sum of £21,000 has been included under the curative services for the purchase of three Mobile Clinics and £40,000 for a Dental Centre at Lokoja.

Public Health Services

Altogether £201,000 would be required over the plan period to construct and equip ten public health centres and other auxiliary health services. The proposed public health centres are to be sited at Erin-Ile, Okenge, Share, Kalama, Isarlu and Abiru and in four other places. The basic aim of these centres and other auxiliary health services is to provide medical, ante natal and preventive health services to people in and around their immediate localities. They will also provide necessary technical guidance and supervision for local authority rural health and maternity services. The existing one at Anka would now be part of the new general hospital proposed for the Division.

A sum of £200,000 has also been earmarked for *Other Health Projects* (both rural and curative) that are in the pipeline.

Training

During the plan period a Nursing School will be built to train more nurses for the State's medical services. The need for this arises because the existing Nursing Schools at Kaduna, Kano and even Ibadan do not provide enough staff to service the hospitals in the State. A sum of £100,000 has therefore been earmarked for the Nursing School and another £100,000 for the training of other auxiliary health services personnel.

Social Welfare

Before the creation of States, most of the social welfare activities available in the then Northern Nigeria were built in the now North Central State. As a result Kwara State inherited little social welfare facilities. The plan therefore is to remedy the situation by investing about £207,000 on the building of a Woman Training Centre, a Stadium, a Remand Home and a Social Welfare Centre all at Ilorin. Under the scheme it is also intended to provide rehabilitation infrastructural incidental services for the disturbed indigenes of this State either by the recent civil war, products of neighbouring countries where such people were domiciled for long or through acts of Nature like storm, flood, etc. During the plan period the following specific projects have been contemplated: Women Training Centre (£25,000) to provide training in home economics and in child care, etc. A modern Stadium (£120,000) with supporting facilities to provide recreation and sporting entertainments, while a Social Welfare Centre (£25,000) will provide a hall for 500 persons and appropriate side rooms for miscellaneous activities such as lectures, plays and conferences etc. The need to keep away juvenile offenders from adult criminals has been recognized throughout Nigeria, hence the proposal for the establishment of a Remand Home at a cost of £10,000.

TABLE XIV
HEALTH PROGRAMMES—Contd.

Project Title	Remarks	CAPITAL EXPENDITURE				
		Estimated Total Cost	1970-71	1971-72	1972-73	1973-74
2. Public Health Services (i) Construction and equipping of Rural Health Centres	10 new Rural Health centres at Erin-Ike, Share, Okengwa, Kaiama, Isanlu, Adoru and four others	300,000	50,000	100,000	75,000	75,000
3. Training (i) Training of Nurses and Midwives	Building of lecture and demonstration rooms and hostels	100,000	—	30,000	30,000	40,000
(ii) Training of other auxiliary health staff	—	100,000	10,000	60,000	30,000	—
4. Communities hospitals and maternities clinics	—	700,000	100,000	200,000	250,000	—
5. Other health projects	—	900,000	40,000	260,000	265,000	335,000
TOTAL	(a)	3,922,000	655,000	1,196,000	1,042,000	1,029,000
	(b)	3,222,000	555,000	996,000	842,000	829,000

TABLE XV
SOCIAL WELFARE PROGRAMME

Project Title	Estimated Total Cost	CAPITAL EXPENDITURE			
		1970-71	1971-72	1972-73	1973-74
1. Women Training Centre	£ 25,000	£ 10,000	£ 15,000	—	—
2. Stadium and related facilities	120,000	50,000	30,000	20,000	20,000
3. Social Welfare Offices	22,000	—	—	10,000	12,000
4. Rehabilitation Infrastructural Incidentals	5,000	—	2,500	2,500	—
5. Remand Home	10,000	—	10,000	—	—
6. Social Welfare Centre	25,000	10,000	15,000	—	—
TOTAL	207,000	70,000	72,500	32,500	32,000

TABLE IX
INDUSTRY
(OUTPUT OF SOME PRODUCTS IN PHYSICAL UNITS)

	Units of Measure	Actual 1968	ESTIMATES				
			1969	1970	1971	1972	1973
COAL	Ton	52,000	52,000	57,000	59,800	62,400	65,000
RUBBER	Ton	22,680	27,000	30,000	31,500	33,000	34,000
TOBACCO PRODUCTS	Thousand Cigarettes	440,000	484,000	508,000	533,000	560,000	590,000
PAPER PRODUCTS	Ton	—	9,000	12,000	14,000	14,000	14,000
MATCHES	Cartons of 5 Gross	84,084	85,000	85,000	85,000	102,000	107,000

TABLE X
HEALTH ANNEX II

	Actual 1969	ENVISAGED DEVELOPMENT			
		1970	1971	1972	1973
<i>Kwara State: Total (1)</i>					
NUMBER OF ALL HOSPITALS	12	13	14	16	14
NUMBER OF BEDS	943	1,106	1,250	1,500	1,700
NUMBER OF DOCTORS	26	34	50	70	90
NUMBER OF OTHER STAFF	817	1,000	1,200	1,500	1,700
RATIO INHABITANTS/DOCTORS	114,600	—	—	—	38,200
INHABITANTS/BEDS	3,160	—	—	—	2,020
AVERAGE PER 1 BED	—	—	3,500	—	—

(1) Excluding health facilities expected to be established by communications (estimate 100-120 beds)

TABLE XI
PRIMARY SCHOOLS¹

	Unit of Measure	Actual 1969	ENVISAGED DEVELOPMENT			
			1970	1971	1972	1973
NUMBER OF PUPILS	Pupil	118,045	130,000	150,000	170,000	190,000
NUMBER OF CLASSES	Class	3,680	4,030	4,500	5,000	5,700
NUMBER OF TEACHERS	Teacher	3,906	4,300	4,800	5,400	6,100
ENROLMENT RATIO AS AT SCHOOL-AGE POPULATION	per cent	34%	—	—	—	50%
ADDITIONAL CLASS-ROOMS	Class-room	225	350	475	500	700
AVERAGE COST PER CLASS-ROOM	£	700	500	500	500	500

¹ All Schools including Voluntary Agencies

TABLE XII
POST PRIMARY EDUCATION ANNEX II

	Actual 1969	ENVISAGED DEVELOPMENT			
		1970	1971	1972	1973
<i>Secondary Schools (including Commercial Schools and Sixth Form)</i>					
NUMBER OF STUDENTS (TOTAL)	7,656	8,602	8,906	10,442	13,916
NUMBER OF CLASSES	232	259	286	339	436
NUMBER OF TEACHERS	348	378	444	508	534
ADDITIONAL CLASSROOMS	—	27	37	43	97
AVERAGE COST PER CLASSROOM in £	1,500	1,500	1,500	1,500	1,500
<i>Teacher Training Schools</i>					
NUMBER OF STUDENTS	2,600	2,600	2,600	2,600	2,600
NUMBER OF CLASSES	82	82	82	82	82
<i>Technical Education College</i>					
NUMBER OF STUDENTS	405	405	500	582	670
NUMBER OF CLASSES	14	14	18	21	24
<i>Technical School</i>					
NUMBER OF STUDENTS	323	323	376	440	480
NUMBER OF CLASSES	12	12	14	16	18

NORTH CENTRAL STATE

Present status: 3 state hospitals and 4 missionary hospitals, 475 beds (1 bed per 10,000 pop.), at least 100 dispensaries by local authorities, 9 doctors (8 of them expatriates, 1 doctor per 500,000 pop.) and 18 midwives.

1970-74 planning

Upgrading of dispensaries to sub-health centers to perform maternal and child health services, health education and communicable disease control.

Establishing rural health centers to supervise the dispensaries.

Establishing referral hospitals.

9 health centers-to be built.

9 doctors , 11 health sisters, 13 health superintendents, 18 dispensary attendants, 18 midwives, 9 community nurses, 26 health inspectors to be recruited.

Establishing Health Education Unit, Nutritional Unit, Health Statistics Unit, and Epidemiological Unit.

Anti-tuberculosis Programme: Tuberculosis clinics and wards to Katsina and Kafanchan Hospitals.

Small Pox and Measles Eradication Programme

Establishing Dental Units in Katsina and Kafanchan.

Improvements to the 3 hospitals and health centers.

Scholarships to medical students.

Grants to local authorities dispensaries, health centers and welfare clinics.

BENUE-PLATEAU STATE

Present status: 9 government hospitals (800 beds) and 7 voluntary agent hospitals (607 beds), 3 leprosarium (117 beds), 14 maternity clinics, and 24 child clinics.

1970-74 planning

Improvements of existing government hospitals; Jos, Keffi, Makurdi, Shendam, Wukari, and Cturkpo

Rebuilding of Pankshin Hospital.

Building of Rural Health Training Centers at Pankshin and Langtang.

Establishing 14 Rural Health Centers.

Improvement of dental centers.

Grants to local authority dispensaries.

Establishing Epidemiological Unit, Nutrition Unit, Health Education Unit.

NORTH EASTERN STATE

(B) HEALTH

The basic objective of the plan in the Health sub-sector is to provide medical facilities to the entire population of the State. This could be achieved in a number of ways namely:—

- (i) By improving the existing General Hospitals to provide more beds and other facilities for the training of health personnel.
- (ii) Building of more hospitals and Dental Centres.
- (iii) Stepping up of campaigns against communicable diseases.
- (iv) Establishment of Rural Health Centres and Sub-Centres to increase the quantity of Medical aid provided the majority of the people who live in the rural areas.
- (v) By encouraging health education.

2. The four-year plan is a short term plan designed to solve the States health problems on a short term basis, and also to set the path for future health development. From this point of view the pivot of the present plan hinges on assigning greater priorities to preventive medicine and also developing training hospitals to provide necessary man-power for the achievement of the long term objective i.e. the spread of medical aid to rural population.

Project 1—Air Conditioning Units for Operating Theatres.—This is a continuing project as air-conditioners will continue to be required throughout the planning period. These units will continue to be required in the labour rooms of the various hospitals, in the laboratory and Blood Banks, and in the various operating theatres.

Project 2—Gombe General Hospital Extension.—This is a continuing project. The Hospital was originally built by the Local Authority and taken over by the Government but it lacks essential facilities befitting a rapidly growing commercial and Agricultural centre. Priority for the extension of this Hospital to meet the demand of the population includes the construction of maternity block, laboratory block, X-ray Department and Operating Theatre, provision of more wards and a proper administrative block. It is proposed to spend £70,000 during the plan period.

Project 3—Maiduguri General Hospital—Improvements.—The present Maiduguri General Hospital was badly planned and most unsuitable for the State Capital. It is considered that the cost of effecting any major improvement would be equal (or even more) than putting up a completely new building.

It is therefore proposed to carry-out a reasonable improvement to the Hospital, pending the construction of a new General Hospital Teaching Complex, which will cost about £3. Million. The New Hospital will cater for the training of nurses, midwives, community Nurses and other para-medical staff. £300,000 will be spent for the proposed improvement.

Project 4—General Hospital Yola.—In future the Status of this Hospital will be raised to the level required by the Nursing Council of Nigeria for recognition as a training institution. However in this plan period funds will only be provided to effect reasonable improvement to the existing structure. About £211,000 has been allocated for this project 1970/74.

Project 5—Nutrition and Epidemeological Units and Health Units.—This Unit is being built in order to control the communicable diseases like small pox, measles, tuberculosis, leprosy etc. The Unit will also serve as a medium of propagating Health Education and the usefulness of balanced diet. Only £5,000 is required.

Project 6—Dental Centres At Maiduguri and Yola—Minor Improvements.—The buildings used as Dental Centres are make-shift arrangement. It is proposed to carry out minor improvement to these existing buildings.

Project 7—Additional Motor Vehicles.—To meet the expansion of activities envisaged in the setting up of Nutritional and Epidemeological Units as well as rural health centres, it is necessary to buy more motor vehicles during the plan period.

NORTH EASTERN STATE

Project 8—Replacement of Motor Vehicles.—Most of the existing vehicles are in poor conditions and need to be replaced.

Project 9—Take Over of Voluntary Agency Hospitals.—There are a good number of hospitals run by voluntary agency missions in the State. These hospitals charge exorbitantly for treatment given to the people. During the plan period some such hospitals may be taken over by the Government.

Project 10—Bauchi Hospital—Improvements.—As a long term objective, it is proposed to bring this Hospital to the standard required by the Nigerian Nursing Council so that the training of nurses, Community Nurses, Midwives and other para-medical personnel can be carried out there. £210,000 has been earmarked to meet the necessary expenditure.

Project 11—Improvement/Extension of Other Hospitals.—Improvements are to be made to a number of other Hospitals in the State, including Azare, Bama, Ganye, Geidam (total cost £150,000.) (See details of improvement required in the Appendix).

Project 12—Erection/Purchase of Senior and Junior Hospital Staff Quarters.—It is necessary to build Institutional houses tied to officers in this Ministry, who are on essential duties. Such houses for junior and senior officers will cost a total of £150,000 during the period.

Project 13:—Erection of State Medical Stores at Gombe, and Sub-Store at Maiduguri.—The building which now house the Medical Store in Gombe is not ideal. It is proposed to have a properly designed medical store at Gombe and Sub-Store Maiduguri.

Project 14:—Construction of Rural Health Centres. - As part of the policy to bring medical facilities to the rural areas, the Rural Health Centres will be built throughout the state supplemented by Sub-Rural health centres, which will be responsible for general supervision of dispensaries, Maternity and Child-Welfare Clinics. One rural Health Centre is designed for a population of 200,000, and it is planned to build four during 1970/74, at a cost of £50,000.

Project 15—Erection of Medical Area Health Office.— Each Medical Area Headquarters in the State will have a Medical Area Health Office, situated within the premises of the General Hospital. This will help to step up the activities of epidemiological and Health Education and Nutrition Units. The offices will be supervised by Medical officers touring the Rural dispensaries.

Project 16—Improvement/Extension of General Hospital Mubi.—General Hospital, Mubi being in the Provincial Headquarters requires special improvements. It is not intended to raise the hospital yet to the status of a training Hospital, but minor improvements, to be made will cost about £100,000.

Project 17—Erection of Dental Centres Bauchi and Mubi.—There are no Dental Centres in Bauchi and Mubi. To build the two centres in 1971/72-73 an amount of £90,000 is required.

Project 18—Minor Hospital Improvements.—A number of Hospitals in the state require minor improvements, if the hospitals are to function properly. These include the provision of blood banks (Bauchi and Yola), concrete fencing, the provision of electric stand-by-generators, and the provision of water tank for adequate and constant supply of water.

Project 19—Grants to V.A. Hospitals Extensions.—Voluntary Agencies Training hospitals, keep on asking for capital grants in order to improve their hospitals. As part of Government's obligation in encouraging expansion and modernisation of these hospitals, capital grants have to be given to them.

Project 20—Grants to Local Authorities & Voluntary Agencies, Erection of Dispensaries, Maternity and Child welfare Clinics.—New dispensaries are being put up by Local Authorities and Voluntary Agencies in the remote rural areas. This augurs well for the future of health

*See details in the Appendix.

planning as conceived by the Government in the setting up of Rural Health centres, it is hoped that these new dispensaries springing up will be converted into such Sub Centres, which will comprise a dispensary and Maternity and child welfare clinic. On such Sub-centres is to serve a population of 20,000.

Project 21—Additional/Replacement of Electric Generating Plant.—Due to frequent failures of E.C.N. electric supplies the essential emergency services rendered by the hospital suffer a serious set back. Which cannot be easily accepted in so far as it is a question of life or death for any serious patients. Again a few generating sets owned by the Ministry are running at a high cost of maintenance due to frequent breakdowns, these would required replacement.

A sum of £40,000 has been provided over the years 1970/74 to meet with this necessity.

Project 22:—New General Hospital and Teaching Complex.—Originally it was planned to spend money on the improvement and extension of various hospitals in the State (Maiduguri, Bauchi, Yola, Mubi etc.) so that they are granted recognition by the Nursing Council and the Midwifery Board of Nigeria for the training of Nurses and other paramedical staff. It is found that it is more economical in the long run to plan a modern hospital, which will be a nucleus for a future Medical School, and it is estimated that this new hospital will cost about £3 million, but only £0.5 million is estimated to be spent during the plan period. This project is likely to attract Federal Government grant designed to provide financial assistance to the States in the Establishment of Medical Schools and Teaching Hospital Complex.

Project 23.—Eye Clinic: Maiduguri, Yola, Mubi, and Bauchi. It is proposed to build Eye Clinics in the State Capital and the Provincial capitals during the plan period (estimated cost £250,000).

Projects 24.—Nurses Hostels:—The foundation stone of a modern nurses hostel has already being laid the estimated total cost is £100,000.

NORTH EASTERN STATE
HEALTH AND SOCIAL WELFARE

Appendix Basis for The Planned Expenditure

1. *Air Conditioning Units for Operating Theatre.*—It is proposed to install ½ Compressor Horse Power Air conditioner in the various hospitals in the labour room, laboratory and blood bank rooms and operating theatres. Each air conditioner is estimated to cost about £250.

2. *Gombe General Hospital.*—Additional required to the Gombe Hospital are as follows:—

- Operating theatre
- X-ray Block
- Laboratory
- Administrative Block
- Out-Patient Department
- Hospital to have its Mortuary sited elsewhere
- Additional 80 beds.
- (Maternity 20; Children 12; T.B. males 12;
- T.B. Female 8; Septic Ward 24; Amenity beds 4).

It is also necessary to fence the hospital.

3. *General Hospital Maiduguri.*—It is proposed to improve this hospital so that it is recognized for training purposes.

4. *General Hospital Yola.*—As above (Project 3).

Main improvements/Extensions required are as follows:—

- Amenity Ward (10 beds).
- Children's Ward (24 beds).
- Female Ward—(24 beds).
- T.B. Ward-Male (24 beds).
- Do-Female (12 beds).
- New operating theatre for Maternity Unit.
- Administrative Block.
- Infectious diseases Ward of 12 beds.
- Nurses Recreation Room.
- Consultant Administration Block.

9. *Take over of Voluntary Agency Hospitals.*—The amount of £100,000 estimated is the minimum required to take over the Voluntary Agency Hospitals, either that of Numan or Kaltungo. In fact the cost of taking over these two hospitals approximate £650,000.

6. *Project 10—Improvements and Extension of Bauchi Hospital.*—As in project 3. Immediate improvements required are as follows:—

- Maternity Block of 30 beds.
- Gynaecology Ward of 16 beds.
- Children's Ward of 66 beds.
- Operation Theatre for Maternity Unit
- Nurses Recreation Room.
- Amenity Ward.
- Consultant's out-patient's Department block.

It is hoped that this hospital will be eventually used for training of nurses, etc.

Project 11—Improvements and Extension to other Hospitals.—Details of the improvements and extensions required are as follows:—

(1) *General Hospital, Azare:*

(a) Maternity Block of 30 beds with delivery suit and ante-natal and child welfare clinic block.

(b) T.B. wards-Male 24 beds

- T.B. wards-Female 12 beds
 (c) Amenity-Female 4 beds
 (2) *General Hospital Bama:*
 (a) Maternity block of 20 beds with delivery suit and ante-natal and child welfare clinic block.
 (b) Children's Ward—16 beds
 (c) T.B. Wards Male—12 beds
 T.B. Wards Female—12 beds
 (3) *General Hospital Ganye:*
 (a) Maternity block of 20 beds with delivery suits and ante-natal and child welfare clinic block.
 (b) Children's Ward—16 beds
 (c) T.B. Wards Male—16 beds
 T.B. Wards Female 12 beds
 (4) *General Hospital Geidam:*
 (a) Children's Wards—12 beds
 (b) T.B. Wards Male 12 beds
 T.B. Wards Female 12 beds
 (c) Septic Male Wards 12 beds
 (d) Septic Female Wards 12 beds
 (e) Nurses Recreation room.
 (f) Garages and storage room.
General Hospital Potiskum Jalingo:
 (a) T.B. Wards-Males—12 beds
 (b) T.B. Wards Female—12 beds
 (c) Infection disease Ward 8 beds
 (d) Septic Male Ward—8 beds
 (e) Septic Female Ward—8 beds

Project 16—Improvement and Extension to General Hospital Mubi.—Additional Buildings required:—

- Maternity Block of 30 beds
 (Delivery Suit and Ante-natal and Child Welfare Clinic).
 Children's Ward of 16 beds.
 T.B. wards of Male 20 beds, Female 12 beds.
 Amenity Ward of 10 beds.
 Infections Disease ward of 12 beds.
 Nurses Recreation room.

*Project 12—Erection/Purchase of Senior and Junior Staff Quarters.—*As the services expand, there would be corresponding increase of senior and junior Staff. There is a shortage of houses throughout the State. Institutional houses would be the best answer to the expansion of the Ministry. It is not convenient to post senior officers to station without adequate and suitable accommodation.

*Project 13—Erection of State Medical Stores at Gombe and Sub-Store at Maiduguri.—*After the creation of States, a place had to be selected where there were existing buildings to rent for our share from Medicinal Stores, Kaduna. We succeeded in getting some buildings at Gombe which is a convenient place due to its being more less in the Centre of State. These buildings were not designed for Medical Stores. It is intended to have a proper Central Medical Stores, at Gombe and a Sub-Store at Maiduguri.

*Project 15—Erection of Medical Area Health Officers.—*It is proposed to have a Health Office in each Medical Area Headquarters in the General Hospital premises in order to step up the activities of the Epidemiological, Health Education and Nutrition Units, Medical Officers responsible for the touring of the Rural Dispensaries, would be directly responsible for the supervision of these offices. It is estimated that these setting up of these offices would cost £75,000 over the 4 years, 1970-74.

NORTH EASTERN STATE

Project 16—Improvement; Extension of Present General Hospital.—In spite of the fact that the proposal to build a New General Hospital at Maiduguri is accepted, it will take few years before it could be completed. We must improve the present hospital as modest as possible so that training of Nurses and Midwives could commence. After the New Hospital is commissioned, the present one would still serve a useful purpose. It could be converted into a T.B. Hospital or Psychiatric Hospital.

Total estimate for the improvement/extension of the General Hospital Maiduguri is £300,000. Out of this £100,000 will be spent on Hostels for Pupil Midwives and Student Nurses. The rest would be spent on Teaching Block, Maternity Unit and improvement of out-patient department for Medical Officers and Consultants.

Project 17—Cottage Hospital.—The present number of Hospitals in the State is very small. There are only 12 Government Hospitals in an area of about 105,000 square miles for about 9 million people. Obviously there is need for more Cottage Hospitals in the State. It is proposed to have Cottage Hospital of about 100 beds each in the next years. The setting of these Hospitals could be decided later.

TABLE (25)
HEALTH

Phasing of Expenditure

<i>Project</i>	1970/71	1971/72	1972/73	1973/74	<i>Total</i>
	£	£	£	£	£
1101. Air Conditioning Units for Operating Theatres ...	2,500	2,000	1,000	2,000	7,500
1102. Additional/Replacement of Electricity General Plants ...	10,000	10,000	10,000	10,000	40,000
2101. Gombe General Hospital Extension ...	30,000	20,000	20,000	—	70,000
2102. Maiduguri General Hospital Improvement ...	25,000	225,000	50,000	—	300,000
2103. General Hospital Yola Improvement ...	2,000	100,000	80,000	29,000	211,000
2104. Improvement/Extension Bauchi ...	—	100,000	100,000	10,000	210,000
2105. Hospital/Extension of other Hospitals ...	100	50,000	50,000	50,000	150,000
2106. Improvement/Extension of General Hospital Mubi ...	50,000	25,000	25,000	—	100,000
2107. Minor Hospital Extension ...	5,000	5,000	5,000	5,000	20,000
3101. Nutrition and Epidemiological Unit Health Education Unit ...	5,000	—	—	—	5,000
4101. Dental Centre at Maiduguri and Yola Minor Improvement ...	500	—	—	—	500
4102. Erection of Dental Centres Bauchi and Mubi ...	—	45,000	45,000	—	90,000
5101. Grants for V.A. Hospital Extension ...	3,000	2,000	2,000	2,000	9,000
5102. Grants for V.A. and L.A. Agencies Erection/Dispensaries, Maternity and Child Welfare Clinics ...	20,000	25,000	25,000	25,000	95,000
5103. Take over of V.A. Hospitals ...	50,000	50,000	—	—	100,000
6101. Erection/Purchase of Senior and Junior Hospital Staff Quarters ...	50,000	50,000	25,000	25,000	150,000
7101. Erection of State Medical Stores at Gombe and Sub-Store at Maiduguri ...	30,000	30,000	20,000	20,000	100,000
7102. Construction of Rural Health Offices ...	100,000	240,000	100,000	100,000	450,000
7103. Erection of Medical Area Health Offices ...	25,000	25,000	25,000	25,000	100,000
8101. Additional Motor Vehicles ...	10,000	5,000	5,000	5,000	25,000
5104. New General Hospital in Maiduguri ...	10,000	300,000	100,000	90,000	500,000
9101. Replacement of Motor Vehicles ...	20,000	10,000	10,000	10,000	50,000
4103. Eye Clinic Maiduguri, Yola, Mubi, Bauchi ...	—	100,000	100,000	50,000	250,000
3108. Nurse Hostel ...	20,000	80,000	—	—	100,000
TOTAL ...	£ 378,000	1,499,000	798,000	458,000	3,133,000

EAST CENTRAL STATE DEVELOPMENT PLAN, 1970-74

86. Project No. 58 (University of Nigeria) is aimed at the reconstruction and re-equipment of the University of Nigeria which suffered very severe damages as a result of the war. Though the University has reopened it is obvious that a lot of reconstruction work will have to be done before things return to normal. The provision under this project is meant to supplement funds coming from the National Universities Commission.

87. Project No. 59 (Institute of Administration) covers minor repairs to buildings, replacement of office equipment and completion of the building programme of the Institute of Administration. The Institute provides in-service training for those already in the civil service.

Health

88. With a total allocation of £7 million, the Health sector is given greater emphasis in this Plan than in the 1962-68 Plan where only £3.2 million was allocated for the whole of Eastern Nigeria. This is accounted for by the fact that the State's medical and health institutions suffered severe damages as a result of the war. The emphasis in the present Plan is on the restoration of facilities existing before the war. The Health projects are as follows:—

Project No.	Title	Capital Expenditure 1970-74 (£'000)
60.	Hospitals	3,775
61.	Reconstruction and re-equipment of Dental Clinics	137
62.	Medical Training	147
63.	Malaria Eradication	321
64.	Health Centre and Maternal and Child Health Service	389
65.	Reconstruction and re-equipment of Health Offices and Laboratory	369
66.	Health Education of the Public	92
67.	Epidemiological Control	220
68.	Tuberculosis Control	112
69.	Leprosy Services	1,136
70.	School Health	58
71.	Health Training	84
72.	Pharmaceutical Stores	160
	Total	£ 7,000

89. Project No. 60 (Hospitals) involves the reconstruction and re-equipment of the General Hospitals which were either partly damaged or totally destroyed during the war. The aim is to restore medical facilities to the pre-war level by reconstructing the hospitals and providing all types of hospital equipment. Provision is made for ambulances, other vehicles and X-ray and laboratory equipment. It is intended to restore six big Radiology Departments and seventy-six X-ray units. The laboratories to be restored include State Laboratories, reference laboratories and small diagnostic laboratories.

EAST CENTRAL STATE DEVELOPMENT PLAN, 1970-74

90. The project also envisages a modest extension of hospital facilities to take care of certain health and social problems created by the civil war. The expansion phase of the project covers the following activities:—

- (a) Two psychiatric hospitals to cater for many cases of mental disorders and other neurotic diseases caused by the strains and stresses of the war. They will be located at Agbani and in Etiti Division;
- (b) Two chest or tuberculosis hospitals to be located at Nsukka and Awgu. In addition the Tuberculosis annexes at Abakaliki, Owerri and Arochuku will be extended;
- (c) Specialist (reference) Hospitals services to be provided at Enugu, Onitsha, Aba and Abakaliki to deal with more complicated medical cases. The Enugu Specialist Hospital will incorporate a unit for Orthopaedic and Plastic Surgery which will deal with the many cases of broken limbs and fractured bones occasioned by the war. It is expected that each of the Specialist Hospitals should be able to provide training facilities;
- (d) The construction of new hospitals with a view to ensuring that at least one Government Hospital is located in every administrative division.

91. Under Project No. 61 (Reconstruction and Re-equipment of Dental Clinics) the two dental clinics at Enugu and Aba will be reconstructed and re-equipped. In addition, because of the increasing incidence of dental and gum diseases and the need for specialized treatment in the field of maxillo-facial surgery, three more dental clinics will be established at Onitsha, Umuahia and Owerri.

92. Project No. 62 (Medical Training) aims at the reconstruction and re-equipment of general nursing schools, including community nurses' and midfery Grades I and II training schools in the State.

93. Project No. 63 (Malaria Eradication) is concerned with the rapid eradication of malaria in the State. For this purpose thirty-three health posts will be established and the project Headquarters at Oji River reconstructed and re-equipped.

94. Under Project No. 64 (Health Centres and Maternal and Child Health Services) the existing sixty-three health centres and ten maternal and child health centres are to be reconstructed and re-equipped. This is essential to ensure the continued provision of these vital services aimed at the protection of the health of children, pregnant women, and nursing mothers. In addition eight new maternal and child health centres will be established at Nkwerre, Okigwi, Nnewi, Ihiala, Afikpo, Oguta, Egbu and Awka.

95. Project No. 65 (Reconstruction and Re-equipment of Health Offices and Laboratories) aims at the creation of a healthy environment for the people of the State by prompt attention to sanitary disposal of faecal and refuse materials, provision of good housing and safety of food. For this purpose the Onitsha, Umuahia, Owerri, Okigwi, Aba and Afikpo health offices will be reconstructed and re-equipped, five new health offices and a central public health laboratory established and the uncompleted Enugu health office completed. The five new health offices will be established at Abakaliki, Nnewi, Nkwerre, Eha-Amufu and Njikoka Divisions. The Central Health Laboratory will be constructed at Enugu.

EAST CENTRAL STATE DEVELOPMENT PLAN, 1970-74

Project No. 66 (Health Education of the Public) will cover the following activities:—

- (a) Repairs to damaged buildings,
- (b) Construction of staff quarters,
- (c) Re-establishment of Health Library Services,
- (d) Re-equipment of the information section of the Unit,
- (e) Restoration of transport facilities for the project,
- (f) Establishment of more units.

Health Education is regarded as the key to success in the maintenance of the health of the community. There are already two units at Aba and Oji River. Five more units will be established at Nsukka, Abakaliki, Umuahia, Owerri, and Onitsha.

96. Project No. 67 (Epidemiological Control) aims at mass immunization of all the citizens of the State and prompt and effective control of the outbreak of infectious diseases. For this purpose rural health service buildings will be reconstructed and vaccines and necessary transport facilities procured.

97. Project No. 68 (Tuberculosis Control) aims at the treatment of open cases of tuberculosis in an institution for about eight weeks, the treatment of other cases on an out-patient basis for about eighteen months, the tracing of contacts and administration of prophylactic treatment, and the institution of B.C.G. immunization. For this purpose the Aba I.D.H. will be completed and equipped and the Enugu I.D.H. expanded by the addition of seventy beds. Provision is also made for the purchase of five vehicles.

98. Project No. 69 (Leprosy Services) aims at the reconstruction of the two principal leper settlements in the State and the resettlement of their inmates. The settlements which are located at Uzuakoli and Oji River were seriously damaged during the civil war. Some patients have mingled with the healthy populace and constitute a serious danger to their health.

99. The goal of Project No. 70 (School Health) is to provide preventive and curative medical services for school children in the State. The existing school services centre at Enugu will therefore be reconstructed. Four new centres will also be established at Aba, Umuahia, Owerri, and Onitsha. Provision is also made for the purchase of vehicles.

100. Project No. 71 (Health Training) aims at the reconstruction of five health training institutions to ensure an uninterrupted supply of qualified people in this vital area. The institutions are the Aba Child Health Institute, School of Hygiene, Aba, Health Education Unit, Aba, Oji River Training School, and Nsukka Demonstration Centre.

101. Project No. 72 (Pharmaceutical Stores) aims at the provision of a Central Pharmacy store for the storage, supply and distribution of drugs and medical equipment to hospitals and other medical institutions in the State. The store will be located at Enugu. In addition a sub-store will be located at Umuahia to ensure that all parts of the State are adequately covered in terms of speed and efficiency in the delivery of drugs to hospitals. The large central medical store at Port Harcourt which served the whole of Eastern Nigeria is now outside this State.

EAST CENTRAL STATE DEVELOPMENT PLAN, 1970-74

Town and Country Planning

102. The physical destructions during the war and the considerable population movements occasioned by the war have conferred some priority to this sector. It is necessary for Government to acquire land and develop it for various purposes, to plan industrial and residential areas, and to provide some accommodation to reduce the problems created by the destructions of the war. The projects included in this sector are:—

<i>Project No.</i>	<i>Title</i>	<i>Capital Expenditure 1970-74 (£'000)</i>
73.	Housing Development Authority	150
74.	Photogrammetry and Map Production	400
75.	Survey School	100
76.	Rehabilitation of Planning Authorities	100
77.	Development of Existing State Lands	500
78.	Land Acquisition and Development	500
	Total	£ 1,750

103. Under Project No. 73 (Housing Development Authority) a corporation responsible for the development of housing estates in the State will be established. The provision of £150,000 will help to set up the corporation which is expected to explore ways of meeting its capital requirements from non-government sources.

104. Project No. 74 (Photogrammetry and Map Production) aims at the replacement of the photogrammetric and map production equipment lost during the war and the equipment of the photogrammetric building completed under the 1962-68 Plan. Map production is essential for many activities of Government and this project is intended to meet this need. The centre will also produce map for schools and other interested organizations.

105. Under Project No. 75 (Survey School) the Survey Training Centre will be reorganized and accommodation and equipment provided. This project will provide on-the-job training for secondary school graduates employed in survey services.

106. Project No. 76 (Rehabilitation and Planning Authorities) aims at the revival of urban and rural planning by making redeemable loans to planning authorities. The authorities which are expected to provide layouts for housing in various parts of the State are based at Enugu, Aba, Abakaliki, Nsukka, Onitsha, Owerri and Umuahia.

107. Project No. 77 (Development of Existing State Lands) aims at the completion of the development of some State Lands by the provision of roads and other basic utilities. The layouts which require urgent development are the Independence Layout, Niger Bridge-head Layout, Old U.A.C. Magazine Layout, Onitsha; and a number of minor layouts.

108. Under Project No. 78 (Land Acquisition and Development), compensation will be paid for land to be acquired for administrative headquarters in all the Divisions

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One of the highlights in the programme is the establishment of the Advanced Teachers Training Course which will be established in 1971-72 at a cost of £600,000. Enrolment in this School is estimated at 270 in 1973-74. It is expected that this will meet the emergent high manpower requirement of the Post-primary institutions.

OTHER PROJECTS

During the plan period a provision of £270,000 has been made for other projects. Details are shown below:

TABLE LIII
CAPITAL EXPENDITURE ON OTHER EDUCATIONAL PROJECTS

OTHERS	1970-71	1971-72	1972-73	1973-74	Total
	£	£	£	£	£N
Subvention to Sports Council	50,000	50,000	64,000	36,000	200,000
School Libraries	15,000	30,000	—	—	45,000
School Sports Equipment	15,000	—	6,000	4,000	25,000
TOTAL	80,000	80,000	70,000	40,000	270,000

HEALTH

Good health is a very important asset for any country. The contribution of a healthy population to economic and social development cannot be over-emphasised. Economically adequate medical and health services with a reduction in the rate of mortality maintain a stable, efficient and productive labour force. Socially, health services ensure that some of the benefits of good health services are enjoyed.

The Rivers State is faced with the problem of rehabilitating the damaged medical institutions during the Nigerian civil war and providing the necessary medical services to the once medically neglected population. This plan aims at finding answers to these problems within the context of our available resources.

The table below shows the total expenditure for the health programme. The outlay consists of four elements— Curative Services. Public Health Services. Training and others.

TABLE LIV

CAPITAL EXPENDITURE ON HEALTH SERVICES

	1970-71	1971-72	1972-73	1973-74	Total 1970-74
SUMMARY	£	£	£	£	£N
Curative Services	624,000	769,000	409,000	385,000	2,187,000
Public Health Services	50,000	100,000	200,000	200,000	550,000
Training	55,000	40,000	60,000	70,000	225,000
Others	50,000	60,000	70,000	70,000	250,000
TOTAL	779,000	969,000	739,000	725,000	3,212,000

1. Curative Services

The following projects are envisaged under the curative services for implementation during the plan period.

TABLE LV

EXPENDITURE ON CURATIVE SERVICES

	1970-71	1971-72	1972-73	1973-74	Total
CURATIVE SERVICES	£	£	£	£	£N
1. Rehabilitation and Improvement of Existing Medical Institutions	200,000	100,000	104,000	96,000	500,000
2. Establishment of New Medical Institutions	400,000	550,000	286,000	294,000	1,500,000
3. Establishment of Infectious Disease Hospitals	10,000	70,000	10,400	9,600	100,000
4. Establishment of Ancillary Medical Services	4,000	9,000	7,280	6,720	27,000
5. Special Equipments for Hospitals	10,000	40,000	1,320	8,680	60,000
TOTAL ..	624,000	769,000	409,000	385,000	2,187,000

(a) Rehabilitation of Existing Medical Institutions

In order to bring the existing hospitals in the State at least to their pre-war condition the Ministry of Health will undertake a general rehabilitation of existing Government and Community hospitals in the State. The Government hospitals concerned are Degema, Yenagoa and Ogoni. Community County Hospitals are Ahoada, Okomoko and Okrika

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hospitals. This project is to be carried out during the plan period. Rehabilitation includes physical reconstruction as well as supply of essential equipments.

(b) Rehabilitation of Port Harcourt General Hospital

Here again, rehabilitation must be completed within the first few years of the plan. The USAID has estimated \$ 950,000 total expenditure of their aid scheme for the renovation of the hospital and the provision of essential equipments.

(c) Building of Hospitals in the Divisions

It is the policy of the Government to provide hospitals at major population centres of the State. Two new hospitals costing £400,000 each are proposed to be built in this period.

(d) Building of Cottage Hospitals

The objective of the project is to establish medical facilities at places within the State where accessibility to existing hospitals and programmed new hospitals is lacking. Particular attention will be paid to the riverine areas where transportation is very difficult.

(e) Hospital Services Section

The Ministry intends to develop certain special centres and units during the plan period 1970-74. These are:

1. Limb Fitting Centre
2. Central Physiotherapy Unit
3. New X-ray Machine
4. Mortuary
5. Kitchen
6. Laundry

2. PUBLIC HEALTH SERVICES

Under the Public Health Service Scheme the State intends to implement the following projects:

(a) Immunization Scheme

Smallpox eradication and Measles control project has been firmly established. In order to prosecute the scheme efficiently the following items should be made available throughout the whole period under review, in sufficient quantities:

TABLE LVI

CAPITAL EXPENDITURE ON PUBLIC HEALTH SERVICES

	1970-71	1971-72	1972-73	1973-74	Total
PUBLIC HEALTH SERVICES	£	£	£	£	£N
Immunization Scheme	10,000	55,000	137,500	137,500	340,000
Mosquito Control Scheme	40,000	30,000	47,500	47,500	165,000
Public Health Inspectors Training Scheme	—	10,000	10,000	10,000	30,000
Station Steam Disinfecter Operators Training Scheme	—	5,000	5,000	5,000	15,000
TOTAL ..	50,000	100,000	200,000	200,000	550,000

- (a) Petrol supply to cover operations
- (b) Refrigerators for storage of vaccines
- (c) Kerosene supply for lighting etc.

(b) Mosquito Control Scheme

Mosquito Scouts have been employed for Port Harcourt. They are now undergoing lectures from the Health Office. In view of the current prevalence of malarial infections all over the State, a malarial eradication scheme is an essential pre-requisite for the State's Health service. A Malariaologist/Epidemiologist will be posted to establish his office here in Port Harcourt. He will be committed to draw programme equivalent to the World Health Organization Scheme at Yaba.

The following will be needed for the implementation of the project:

- (i) Sufficient drums of Malarial Oil
- (ii) Sufficient Drums of Kerosene
- (iii) D.D.T. Technical and Emulsion
- (iv) Ground Sheets for Adult
- (v) Knapsack sprayers, etc.

(c) Public Health Inspectors Training Scheme

Thirty-four Inspectors are required within the Plan period. Recruitment of Public Health Inspectors is the most urgent need of the Division. A Training School will be established with adequate staffing. The state will still use the facilities offered by the existing Federal Public Health Training.

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(d) The Station Steam Disinfector Operators Training Scheme

Already there is one new steam Disinfector provided at the Port Harcourt Office which is not operating. The need to train operators for the steam disinfector is imperative. This project envisages the training of steam disinfectors to run the machine.

3. TRAINING

Training Centre for Nurses and Other Medical Personnel

This includes training of nurses, midwives and hospital auxiliaries. Training must be centralized in Port Harcourt initially but as the other peripheral hospitals are expanded or as new hospitals are built, approval may be given to them for purposes of training the above personnel. Hospital accommodation will be provided with furniture and equipment as well as classroom accommodation completed with furniture, equipment and teaching aids.

A training scheme is also required for other para-medical staff covering the ranks of tutors, laboratory technicians, X-ray technicians, Dental technicians and Physiotherapists. Training will take the form of study leave, course of instruction or post-graduate courses. Other forms of training may be based on technical assistance offered by friendly foreign governments. In some cases the Ministry may be compelled to establish its own training schools. This phase is estimated to cost £50,000. In addition the Ministry needs a turnout of a minimum of ten doctors annually through a system of State or Federal Government Scholarships and bursaries.

TABLE LVII

EXPENDITURE ON TRAINING PROJECTS

1970-71	1971-72	1972-73	1973-74	Total
£ 55,000	£ 40,000	£ 60,000	£ 70,000	£N 225,000

4. OTHER MEDICAL PROJECTS

(a) Mental Health Service

The State proposes to develop a Mental Health Service at an estimated cost of £50,000

(b) Laboratory Services

Under this programme the following services are proposed:

(1) Establishment of fully operational laboratory department with the following provisions:

(a) A well-equipped blood transfusion laboratory with a blood bank and personnel to give a 24 hour a day service.

(b) A well-equipped fully air conditioned bacteriology laboratory.

(c) Separate haematology, Biochemistry, Parasitology and Histology laboratories.

(2) Reconstruction of the General Hospital Laboratory Port Harcourt to conform to the internationally acceptable standards, by building new blocks of buildings and renovating the old ones, to accommodate the various departments of a routine pathology laboratory.

(3) Establishment of an animal house to be attached to the bacteriology laboratory.

(4) Official establishment of a School of Medical laboratory Technology.

(5) Establishment of laboratories at least up to the standard of Health Centres as operating in Lagos, in each of the Divisional Headquarters in the State.

PHARMACY EQUIPMENT

In order to establish a cold store for the hospitals fifteen fridges will be required. In addition, a plant will be needed to develop the Cold Room of the Medical Stores.

SEGREGATION CLINICS

The rehabilitation and re-opening of the Isoba Leprosy Settlement for the accommodation of all infectious cases in the areas is a project being actively considered by the Ministry. The aim is to halt the spread of the disease. It is felt that there should be at least four segregation clinics with treatment blocks for each Division in the State. For the five Divisions there will be twenty clinics altogether.

(e) Training Courses for Leprosy Inspectors

It is deemed essential that opportunities will be created for advanced Leprosy Inspectors to undergo inservice or refresher courses in places like India where leprosy research study courses are offered. The duration of these courses which are normally short vary from three months to six months.

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APPENDIX J

RIVERS STATE DEVELOPMENT PLAN 1970-74 CAPITAL EXPENDITURE ON HEALTH

No.	Project	1970-71	1971-72	1972-73	1973-74	Total 1970-74
	CURATIVE SERVICES	£	£	£	£	£N
1.	Rehabilitation and Improvement of Existing Medical Institutions	200,000	100,000	104,000	96,000	500,000
2.	Establishment of New Medical Institutions	400,000	550,000	286,000	294,000	1,500,000
3.	Establishment of Infectious Disease Hospitals	10,000	70,000	10,400	9,600	100,000
4.	Establishment of Ancilliary Medical Services	4,000	9,000	7,280	6,720	27,000
5.	Special Equipments for Hospitals	10,000	40,000	1,320	8,680	60,000
	TOTAL	624,000	769,000	409,000	385,000	2,187,000
	PUBLIC HEALTH SERVICES					
6.	Immunization Scheme	10,000	55,000	137,500	137,500	340,000
7.	Mosquito Control Scheme	40,000	30,000	47,500	47,500	165,000
8.	Public Health Inspectors Training Scheme	—	10,000	10,000	10,000	30,000
9.	Station Steam Disinfecter Operators Training Scheme	—	5,000	5,000	5,000	15,000
	TOTAL	50,000	100,000	200,000	200,000	550,000
	TRAINING					
10.	Training Centre for Nurses and Other Medical Personnel	55,000	40,000	60,000	70,000	225,000
	TOTAL	55,000	40,000	60,000	70,000	225,000
	OTHERS					
11.	Mental Health Services	10,000	15,000	12,500	12,500	50,000
12.	Laboratory Services	30,000	20,000	40,000	40,000	130,000
13.	Pharmacy Equipment	10,000	20,000	15,000	15,000	60,000
14.	Segregation Clinics	—	5,000	2,500	2,500	10,000
	TOTAL	50,000	60,000	70,000	70,000	250,000
	SUMMARY					
	Curative Services	624,000	769,000	409,000	385,000	2,187,000
	Public Health Services	50,000	100,000	200,000	200,000	550,000
	Training	55,000	40,000	60,000	70,000	225,000
	Others	50,000	60,000	70,000	70,000	250,000
	TOTAL	779,000	969,000	739,000	725,000	3,212,000

APPENDIX K

RIVERS STATE DEVELOPMENT PLAN 1970-74
CAPITAL EXPENDITURE ON INFORMATION SERVICES

No.	Project	1970-71	1971-72	1972-73	1973-74	Total 1970-74
	INFORMATION MEDIA	£	£	£	£	£N
1.	Rivers State Information Service	100,000	100,000	98,000	102,000	400,000
2.	Printing Machines and Other equipment for Government Press	—	25,000	37,000	38,000	100,000
	TOTAL	100,000	125,000	135,000	140,000	500,000

TOKYO MEDICAL AND DENTAL UNIVERSITY
NO 5-45, 1-CHOME, YUSHIMA, BUNKYO-KU
TOKYO, JAPAN

SOUTH-EASTERN STATE

Present status (1969): 24 hospitals and clinics (2400 beds),
33 Maternity homes (396 beds), 9 Health centers (54
beds), 2 Tuberculosis centers (85beds), 1 Mental hospital
(29 beds), and 3 Leper colcny (160 beds).

1970-74 planning

Building Calabar Specialist Hospital.

Expansion of Government Medical Store (Calabar).

Conversion of 25 dispensaries to Rural Health Centers
and Polyclinics, to achieve the state of 2 health
centers for each of 14 divisions.

MID-WESTERN STATE

Present status (1967): 9 Government hospitals (660 beds) and 14 missionary hospitals (604 beds), 160 Maternity centers, 6 Welfare centers, 204 dispensaries, and 2 Dental centers (Benin and Warri). 41 doctors, 11 pharmacists, 2 dental surgeons, 366 nurses, 208 mid-wives, 24 laboratory technicians, 20 dispensary assistants and infectious disease hospital attendants.

1970-74 projects:

- Building 12 General Hospitals and 10 Maternity Hospitals in relatively small towns.
- Reconstruction and Expansion of existing hospitals.
- Establishing Medical Center, Benin City (Teaching Hosp.) with 600 beds or more and Nursing School.
- Building Medical Stores for bulk purchased drugs etc.
- Addition of Tuberculosis wards to 7 Government Hosp.
- Establishing Drug manufacturing factory at Benin.
- Opening an Eye Clinic at Benin and Dental Centers at Agbor and Auchu,
- Establishing Medical Circle Headquarters Hospitals at Benin, Warri, Agbor, and Auchu.
- Establishing Health Auxiliary Training School (Benin) to train Public Health Inspectors, Community Nurses, Dispensary Attendants, Medical Field Unit Assistants, Leprosy Inspectors, and Sanitary Overseers.
- Construction and equipping 45 dispensaries.
- Building Health offices and Urban Health Centers and 2 Rural Health Centers at Uhi and Ukpilla, 100 Dressing Stations, 1 Chest (TB) Clinic at Benin, Infectious Diseases Hospitals at Warri and Sapele, and Public Health Laboratory (Benin).

LAGOS STATE

Present status: one each of General hospital, Maternity hosp, Childrens hospital, Mental hosp., Orthopaedics hosp., Infectious Diseases hosp., Dispensary, Leper Clinic, School Clinic, Tuberculosis service center, and 3 Health Centers. 2153 beds, 179 doctors ,and 979 nurses.

1970-74 projects:

Building of another mortuary.

Rebuilding of Yaba Mental Hospital at new site at expanded size with lecture room for School of Psychiatry Nursing.

Building a Hostel for General, Community, and Midwifery Nursing Schools.

Expansion of Royal Orthopaedic Hospital.

Upgrading of Ikeja General Hospital to a specialist hosp.

Modernization of General Hospital, Lagos.

Building of Ikorodu General Hospital and Mushin District Hospital.

Building 4 comprehensive Health Centers.

Expansion of Preventive Health Service Scheme :

Occupational Health Service, Public Health Inspectorate Unit, Pharmaceutical Inspectorate Unit, Health Education Unit, and Epidemiological Unit.

CHAPTER VII

HEALTH AND MEDICAL SERVICES

125. The contribution of a healthy population to economic and social development cannot be over-emphasised. The Government is therefore conscious of the importance of sound health and medical care for the people of the State.

Recent Performance

126. A total capital expenditure of about £2.6 million was incurred in 1962-68 Plan period. Emphasis was placed on curative services, hence, the construction of State Hospitals with specialist facilities in most of the eight Medical Zones into which the Western State was divided and the expansion and improvement of General Hospitals and the opening of District Hospitals. The programme also aimed at the improvement of Public Health facilities with the provision of Health, Dental, and Maternity Centres.

127. During the 1962-68 Plan period, seven General Hospitals were up-graded to the status of the State Hospitals by the provision of additional qualified medical personnel, better equipment and drugs. The hospitals are located in Ife, Osogbo, Ibadan, Oyo, Abeokuta, Ijebu-Ode, and Akure.

Policy Issues and Objectives

128. While the policy objective will be to consolidate existing services by providing necessary inputs of qualified and specialist medical personnel, better equipment and drugs, efforts will be made to bring health and medical services within easy reach of the people. The eradication of communicable diseases will also be intensified, for example, small-pox and measles. Manpower development will also be pursued and the Federal Government plan to expand the system of Medical Schools and Teaching Hospitals will go a long way to solve the problem of acute shortage of medical and para-medical personnel. In addition to the establishment of a Faculty of Medicine in the University of Ife, the Government will also improve on its recruitment policies as well as device policies which will ensure the retention of existing staff as far as possible.

129. The specific objectives to be pursued will be:

- (i) To consolidate the facilities in the health and medical institutions by improving on the doctor/population ratio which at present stands at 1/50,000. To this end, admission to the University Teaching Hospital at Ibadan will be increased considerably. The limitation hitherto put on admission of students for clinical teaching will be ameliorated by the expansion of facilities which will become available when all the State Hospitals start to function fully. It is also intended to attain a ratio of 1/100,000 in the supply of pharmacists instead of the present of 1/130,000; the expected ratio of radiographers/population will be 1/130,000; (instead of the present ratio of 1/400,000) and that of staff nurses/midwives to be 1/5,000 (instead of the present ratio of 1/8,500). In the area of *Perennize* service, it is hoped to achieve a target of one health centre per 330,000 people and one State Health Office in each of the eight Health Districts in the State. It is also hoped to achieve a ratio of one public health doctor per health district, one health inspector per 30,000 people, one health sister per 60,000 people and one community nurse per 40,000 people.

Ibadan Wastes Disposal and Drainage Project

121. With the rapid growth of Ibadan and the menace of frequent and disastrous flooding of Ogunpa and Kudiki rivers, and problems of drainage and solid waste disposal, it is proposed to embark on various schemes—viz, improvements to curative service, construction of public facilities and general flood control. The schemes have already been phased out and the first phase is the preparation of a technically detailed Master Plan, giving information on the Ibadan water supply system, sanitary and sewage facilities, surface water collection and disposal, solid waste collection and disposal, population growth, health and fire risks and protection. The cost of financing the plan is shared between the Government and the United Nations Development Programme.

122. The first phase coincided with the end of the 1962-68 Development Plan period and over-spills into the second Development Plan. The second phase of the project which is the implementation stage will be taken care of in the 1970-74 Development Plan period.

123. The second phase of the project is the implementation stage which includes the following: improving the conservancy service, constructing public facilities, sanitary sewers, flood control structures, solid waste collection and disposal facilities and Comfort Stations.

The comfort stations would be essentially private facilities each serving possibly four family groups or approximately 200 persons and would provide toilets, showers and clothes washing facilities. The pilot study approach would permit detailed evaluation of social acceptability, functional requirements and methods of initiating financing and constructing under actual conditions, thus ensuring successful implementation of this type of facility in the development of the Master Plan for the provision of improved sanitation facilities in the Old Town. The problems associated with the scheme lie in educating the public to use the comfort stations to be provided and to keep the town clean. The Town Planning Authorities also have to make appropriate arrangements for the disposal of wastes by requiring that septic tanks are provided in all new buildings.

124. The implementation of project is phased out in the Table below:

TABLE XXV

Ibadan Sewerage Scheme

Project	1970-71	1971-72	1972-73	1973-74	Total
	£	£	£	£	
Sewerage	100,000	300,000	800,000	800,000	2,000,000
Drainage	395,000	412,500	412,500	425,000	1,645,000
Solid Wastes	100,000	100,000	100,000	100,000	400,000
TOTAL	£ 595,000	£ 812,500	£ 1,312,500	£ 1,325,000	£ 4,045,000

The summary of the projects is shown in Appendix XIII.

**CHAPTER VIII
EDUCATION**

132. The purpose of education is a controversial one. While a school of thought accepts that education should be used as a tool to prepare the individual to undertake specific tasks and employment functions and so enable him to discover his own personality and enrich his knowledge, others accept that education should be a policy instrument for economic and social development. A sound education policy should seek to combine the two major objectives—to enable the individual to discover his potentialities and make him contribute to the development process. This idea will underline the development of education during the Plan period.

Past Performances and Problems

133. The last Plan period witnessed increases in enrolment from the Primary to the University level of the educational strata. Increased accommodation was provided by expanding existing facilities and providing new ones. Steps were also taken to improve on the quality of necessary input for the successful realisation of the objectives of providing better qualified teaching staff and equipment and materials. The actual capital expenditure was £9 million.

134. The education system is however beset with problems such as wastages, lack of adequate equipment and poor teaching standards. There was also too much emphasis on formal education and the orientation of the products of the institutions was biased towards white-collar jobs. There was also lack of co-ordination between all levels of the education strata. The resultant effects manifested themselves in increasing number of drop-outs and in a shortage of semi-skilled workers.

Policies and Objectives

135. The general policy will be the co-ordination of all levels of the education system from the primary to the University level. There will be an increasing emphasis on the need to develop formal and adult education. The mid-70 will also witness a re-orientation towards science and technical education and in this direction, a Polytechnic with a technological bias will be set up and existing Trade Centres will be expanded. There will also be expanding avenues for the further training of teaching personnel engaged in Primary, Secondary and Teacher Training education and on-the-job training for factory operatives.

136. In the field of higher education, the University of Ife will be assisted to enable it supply the necessary skilled man-power that is essential for the rapid economic development of the State. A provision of £24.5 million is made for this sub-sector.

Primary Education

137. During the plan period, primary school enrolment which is now about 750,000 is estimated to increase at the rate of 3 per cent per annum. It is the policy of Government to provide additional classroom accommodation, repair and where necessary, rebuild the present classroom blocks some of which are of shoddy designs and in a poor state of disrepair. Within the next four years, it is proposed to rebuild 4,949 classroom blocks and carry out repairs on about 200 others. In addition, other ancillary services which include the provision of 246 administrative library blocks and 141 craftrooms/assembly halls are also proposed in order to create a more congenial atmosphere for imparting knowledge.

(ii) To improve on the services of the Basic Health Units, i.e., environmental health and sanitation, Maternal and Child Welfare services and universal immunisation of children. In this direction, it is intended to achieve the following targets in the eradication of diseases:

- (a) Malaria is expected to be reduced to 100 per 10,000 people;
- (b) Dysentery is expected to be reduced to 20 per 10,000 people;
- (c) Measles to be reduced to 10 per 10,000 people;
- (d) Small-pox to be reduced to 10 per 10,000 people;
- (e) Tuberculosis to be reduced to 30 per 10,000 people;
- (f) Leprosy to be reduced to 30 per 10,000 people;
- (g) Tetanus to be reduced to 5 per 10,000 people.

(iii) To improve on the provision of drugs to hospitals. The question of manufacturing drugs in the State in order to minimize cost and ensure prompt delivery is being closely examined, and care will be taken to see to a judicious use of the drugs supplied to hospitals and medical institutions.

(iv) To improve on provision of bed accommodation in hospitals from 5/10,000 to 7/12,000.

(v) To provide increasing hospital facilities for residents in rural areas.

(vi) To improve on the present machinery of propagating health items by increasing the Health Education Teaching facilities at the Health Auxiliaries Training School, Ibadan. During the Plan, period the School Health and Dental Services will be improved upon. The research into bilharzia and nutrition shall be intensified. It is also hoped that the sewage system based on photo-synthetic oxidation being tried out by the Department of Sanitary Engineering of the University of Ife will have tremendous impact on the environmental hygiene standard of the rural areas when fully developed. The already close co-operation with the Nutrition Centre of the University of Ibadan will also continue. There will also be closer co-operation with the Information Division of the Ministry of Home Affairs and Information in publicising the aims and programmes of the Health Units.

Population Policy

130. During this Plan period, the government will continue to co-operate with the Family Planning Council and the National Population Council and any other recognised private organisations engaged in family planning programmes. The family planning facilities in hospitals, clinics and maternity centres will be expanded in order to help willing families to choose the number and spacing of their children.

131. The estimated cost of the programmes for health and medical services is:

(i) Curative Services	£ 3.952
(ii) Public Health Services	0.660
(iii) Others	1.000
TOTAL	£ 5.612

A summary of projects is in Appendix XIV.

APPENDIX XIIIa - contd

No.	Details of Water Schemes	1970-71	1971-72	1972-73	1973-74	Total
		£	£	£	£	£
35.	Ire/Otan/Iresi/Igbojo	30,000	10,000	7,000	3,000	50,000
36.	Aramoko (Extension from Ado-Ekiti)	21,000	6,000	6,000	3,000	36,000
37.	Ikure/Apomu/Ikoyi	60,000	20,000	10,000	10,000	100,000
38.	Kishi/Igboho/Igbetti	30,000	10,000	7,000	3,000	50,000
39.	Oke-Iho/Iganna/Ilero	30,000	10,000	7,000	3,000	50,000
40.	Ihau/Aiyede/Iyero/Iddo/Ikiki/Onun/Ipoti (Main Scheme)	60,000	20,000	10,000	10,000	100,000
41.	Akangba/Sunpore/Obe/Idoani/Oka/Ishus/Ifris/Ukpe	60,000	20,000	10,000	10,000	100,000
42.	Ejigbo/Ota/Oko	60,000	20,000	10,000	10,000	100,000
43.	Iade/Apurre	7,000	2,000	1,000	—	10,000
44.	Igbale/Ala	6,000	2,000	1,000	1,000	10,000
45.	Water supply Investigation and Consultants Fees	150,000	50,000	35,000	15,000	250,000
46.	Abeokuta Water Supply	90,000	30,000	20,000	10,000	150,000
47.	Hydrological Investigations	10,000	3,000	2,000	1,000	16,000
48.	Contract 41 Schemes: Outstanding Bills	60,000	20,000	15,000	5,000	100,000
49.	Iloro Water Scheme	12,000	5,000	2,000	1,000	20,000
50.	Owo/Emure-Ile/Ipele (Extensions from Owo)	21,000	7,000	5,000	2,000	35,000
51.	Ota Treatment Plant	18,000	6,000	4,000	2,000	30,000
52.	Okeemesi Treatment Plant	9,000	3,000	2,000	1,000	15,000
53.	Iferu/Oyere Booster Station	45,000	15,000	10,000	5,000	75,000
54.	Ibadan Water Supply Extension to Distribution System and Emergency Scheme	102,000	35,000	25,000	13,000	175,000
55.	Ikare Improvement	30,000	10,000	7,000	3,000	50,000
56.	Extensions and Improvements to Existing Schemes and Miscellaneous	80,000	27,000	18,000	9,000	134,000
57.	Rural Water Supplies Investigations	12,000	4,000	3,000	1,000	20,000
58.	Sinking of Wells and Improvements to Existing Boreholes	42,000	14,000	10,000	4,000	70,000
59.	Lahupon Scheme	24,000	8,000	6,000	2,000	40,000
60.	Iso/Ogbese Improvement	12,000	4,000	3,000	1,000	20,000
61.	Ifon/Ikare provision of Treatment Plant	12,000	4,000	3,000	1,000	20,000
62.	Efon-Alaye	6,000	2,000	1,000	1,000	10,000
63.	Osele-Odeda	6,000	2,000	1,000	1,000	10,000
64.	Ipolu	12,000	4,000	3,000	1,000	20,000
65.	Ibiade	12,000	4,000	3,000	1,000	20,000
66.	Osoos/Iidowa	12,000	4,000	3,000	1,000	20,000
	TOTAL	£ 4,500,000	1,500,000	1,000,000	500,000	7,500,000

APPENDIX XIIIb

SUMMARY OF WATER AND SEWERAGE SCHEMES 1970-74

SCHEMES	1970-71	1971-72	1972-73	1973-74	Total
Water Schemes	4,500,000	1,500,000	1,000,000	500,000	7,500,000
Ibadan Sewerage Disposal	150,000	900,000	1,500,000	1,495,000	4,045,000
TOTAL	£ 4,650,000	2,400,000	2,500,000	1,995,000	11,545,000

APPENDIX XIV

MEDICAL AND HEALTH SERVICES PROJECTS 1970-71

Projects	1970-71	1971-72	1972-73	1973-74	Total
	£	£	£	£	£
1. General Hospital, Ibadan	75,000	15,000	15,000	15,000	120,000
2. 4 Dental Centres (Ado-Ekiti, Ile-Ife, Oyo, Ondo)	5,000	10,000	10,000	7,000	32,000
3. 9 District Hospitals (Idanre, Isẹyin, Ifetodo/Okeigbo, Ikorun, Ile-Oluogun, Ipetu-Iyaha, Gboogun, Ogun-Ekiti, Igbara Oke/Igbara-Odo)	300,000	200,000	200,000	200,000	900,000
4. 1 Maxillo-Facial Unit, Ibadan	10,000	10,000	—	—	20,000
5. 9 Health Centres (Atan, Moniya, Akurru, Ajebamidele, Ala, Akurru, Owena, Igboho, Odo)	90,000	90,000	135,000	135,000	450,000
6. 8 Health Offices (Abeokuta, Ado-Ekiti, Akure, Ibadan, Ife, Ijebu-Ode, Ogbomosho, Oyo)	10,000	15,000	75,000	60,000	160,000
7. 2 Leprosy Hospitals (Abeokuta, Akure)	10,000	30,000	30,000	30,000	100,000
8. T. B. Wards at Jericho Chest Clinic	5,000	10,000	15,000	10,000	40,000
9. Ana Neuro-Psychiatric Hospital, Abeokuta	5,000	150,000	200,000	145,000	500,000
10. Orthopaedic Hospital, Ibadan	5,000	50,000	145,000	100,000	300,000
11. Improvement to Existing Hospitals and Medical Institutions	100,000	100,000	100,000	100,000	400,000
12. Completion of Spill-Over Projects, Training etc.	250,000	250,000	250,000	250,000	1,000,000
13. Medical Equipment Apparatus, Vehicles, etc.	40,000	35,000	30,000	45,000	150,000
14. Net Induced Recurrent Expenditure	407,000	395,000	245,000	373,000	1,440,000
TOTAL	£ 1,312,000	1,360,000	1,470,000	1,470,000	5,612,000

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