

50X1

[]

Table of Contents

Nigeria

NIS 50B

| | <u>Page</u> |
|---|-------------|
| A. General | 1 |
| B. Environmental factors affecting health | 1 |
| 1. Topography and climate | 1 |
| 2. Socio-economic pattern | 1 |
| 3. Animal and plant life | 2 |
| a. Animal | 2 |
| (2) Flies | 2 |
| (5) Ticks and mites | 2 |
| (a) Ticks | 2 |
| (b) Mites | 2 |
| (7) Mollusks | 3 |
| (8) Worms | 3 |
| (10) Rodents | 4 |
| (11) Wild animals | 4 |
| 4. Nutrition | 4 |
| b. Food supply and distribution | 4 |
| c. Food sanitation, storage, and technology | 5 |
| C. Diseases | 5 |
| 2. Diseases of animals | 5 |
| a. Prevalent animal diseases | 5 |
| (1) Trypanosomiasis | 5 |
| (2) Rinderpest | 6 |
| (3) Contagious bovine pleuropneumonia | 7 |
| (4) Rabies | 7 |
| (5) Parasitoses | 7 |
| (6) Streptothricosis | 8 |
| (7) Foot-and-mouth disease | 8 |
| (8) Pasteurella infections | 8 |
| (9) "Pneumonia of goats" | 8 |
| (10) "Staggers" | 8 |
| (11) Poultry diseases | 9 |
| b. Other important animal diseases | 9 |

50X1

[Redacted]

50X1

Page

| | |
|--|----|
| D. Veterinary organizations and administration | 9 |
| 1. Civilian | 9 |
| a. Organization | 9 |
| b. Legal controls | 10 |
| (1) Licensure | 10 |
| (2) Quarantine | 10 |
| (3) Inspection | 11 |
| c. Professional veterinary organization | 11 |
| d. Veterinary research | 11 |
| f. Emergency veterinary services | 11 |
| 2. Military veterinary organization | 12 |
| E. Veterinary manpower | 12 |
| F. Veterinary facilities | 12 |
| G. Veterinary supplies and materials | 13 |
| H. Reference data | 13 |
| I. Comments on principal sources | 13 |
| 1. Evaluation | 13 |
| 2. List of sources (in order of importance) | 13 |

[Redacted]

50X1

[Redacted]

50X1

50X1

[REDACTED]

NIS 50B - Section 45

Nigeria

A. General

Nigeria's livestock suffers from many serious animal diseases, some of which are of considerable public health significance. The veterinary services are by far too understaffed to carry out efficient control measures. Inability or reluctance of livestock owners to adopt proper management procedures, and the continual influx of diseased cattle and goats from surrounding territories, are other factors responsible for the low standard of animal health. Nigeria's government, eager to realize the country's potential as a livestock producing area, has requested assistance from the Agency for International Development (AID) and the Food and Agriculture Organization of the United Nations (FAO), but has received little veterinary aid so far.

B. Environmental factors affecting health

1. Topography and climate -- Aside from the coastal mangrove swamp forest belt, all areas of Nigeria have considerable land adaptable to animal raising. However, uncontrolled grazing, herd mismanagement and disease curtail the country's ability to support significant numbers of livestock. 12/ 23/ 25/ 26/ 33/ 35/

2. Socio-economic pattern -- Despite educational campaigns by government and international agencies, large segments of Nigeria's rural population are still ignorant of even the most elementary animal health and management procedures, or like the Fulani tribes in the Northern Region, are reluctant to break from tradition by adopting modern husbandry methods. Many of Nigeria's younger people are unwilling to follow agricultural pursuits and drift into cities and towns in search of better work prospects and higher living standards. 6/ 13/ 15/ 16/ 17/ 23/

50X1

CONFIDENTIAL

3. Animal and plant life

a. Animal

(2) Flies -- Of the innumerable varieties of flies occurring in Nigeria,

tsetse flies, the carriers of trypanosomiasis, are by far the most significant.

The following species have been reported:

| | |
|---------------------------|------------------------|
| <u>Glossina caliginea</u> | <u>G. nigrofusca</u> |
| <u>G. fusca</u> | <u>G. pallicerca</u> |
| <u>G. haningtoni</u> | <u>G. palpalis</u> |
| <u>G. longipalpis</u> | <u>G. tachinoides</u> |
| <u>G. medicorum</u> | <u>G. tabaniformis</u> |
| <u>G. morsitans</u> | |

14/ 19/ 38/ 39/

(5) Ticks and mites

(a) Ticks -- Numerous species of ticks, many of them disease vectors,

exist in Nigeria. The more important ones and the diseases they are capable of transmitting are:

| | |
|-------------------------------------|--|
| <u>Amblyomma variegatum</u> | heartwater |
| <u>Argus persicus</u> | avian spirochaetosis |
| <u>Hyalomma spp.</u> | piroplasmosis, theileriosis, African tick-borne fever (boutonneuse fever) |
| <u>Maragophus annulatus</u> | piroplasmosis |
| <u>Palpoboophilus decoloratus</u> | piroplasmosis, anaplasmosis |
| <u>Rhipicephalus appendiculatus</u> | piroplasmosis, theileriosis, louping ill, Nairobi sheep disease, African tick-borne fever. |
| <u>R. capensis</u> | East coast fever |
| <u>R. evertsi</u> | piroplasmosis, East coast fever, spirochaetosis |
| <u>R. simus</u> | anaplasmosis, East coast fever |

(b) Mites -- Mite infestations cause severe debilitation in domestic

animals. The more important species of mites are: Demodex spp., Sarcoptes scabiei.

varieties, Psoroptes communis varieties. 17/ 28/ 29/ 32/

CONFIDENTIAL

-2-

CONFIDENTIAL

(7) Mollusks -- Lymnaea natalensis and species of the genera Planorbis

and Physopsis are intermediate hosts for the liver fluke Fasciola gigantica.

Biomphalaria pfeifferi gaudi and Bulinus (Physopsis) globosus serve as intermediate

host of human and animal schistosomes.^{7/}

(8) Worms -- The following parasitic helminths of livestock have been

identified in Nigeria:

Trematoda- Dicrocoelium dendriticum (lanceolatum)

D. hospes

Fasciola gigantica

Paramphistomum spp.

Schistosoma bovis

S. spindale

Cestoda- Avitellina centripunctata

Cysticercus bovis

C. cellulosa

C. tenuicollis

Helicometra giardi

Moniezia benedeni

M. expansa

Raillietina spp.

Stilesia globipunctata

Nematoda- Bunostomum phlebotomum

B. trigonocephalum

Cooperia pectinata

C. punctata

Dictyocaulus viviparus

Gaigeria pachyscelis

Gongylonema verrucosum

Haemonchus contortus

H. placei

Neoscaris vitulorum

CONFIDENTIAL

CONFIDENTIAL

Oesophagostomum columbianum

O. radiatum

Onchocerca gibsoni

Parafilaria bovicola

Setaria cervi

S. labiato-papillosa

Strongyloides papillosus

Syngamus spp.

Thelazia rhodesii

Trichostrongylus axei

T. colubriformis

Trichuris globulosa

T. ovis

7/ 15/ 32/

(10) Rodents -- The ground-squirrel Xerus erythropus, a most common and widely distributed rodent, is believed to be a reservoir of rabies in Nigeria. ^{11/}

(11) Wild animals -- Monkeys, antelopes, buffaloes (bush cows), hartebeests and other wild animals are reservoirs of trypanosomiasis of livestock and man. Wart hogs (Phacochoerus sp.) and Red-River hogs (Potamuchocerus porcus), are potential carriers of African swine fever. Jackals, feral cats, hyenas, foxes and bats, are capable of serving as rabies reservoirs. ^{8/ 13/ 11/ 26/}

4. Nutrition

b. Food supply and distribution -- Most Nigerians have to depend primarily on crops for their supply of protein. In 1959, it was estimated that out of a daily adult protein intake averaging 72 grams, only 7 grams were of animal origin, some of which was contributed by livestock from surrounding territories and by imported dried fish. Milk is absent from the diet of about three-fourths of the population. The cattle herds of the Fulani tribes in the Northern Region supply their owners with milk,

CONFIDENTIAL

-4-

50X1

but make only a limited contribution to the country's meat supply. Fulani husbandry methods, based on a tradition equating wealth and social prestige with the number of cattle owned, leave few animals for slaughter or sale. Cattle in the Eastern and Western Regions are kept for ceremonial purposes and are likewise not a significant source of meat. Government attempts to alleviate the animal protein shortage through an expansion of sea and inland fishing have been unsuccessful so far. 5/11/12/13/20/23/24/

c. Food sanitation, storage, and technology -- With the exception of some modern districts of Lagos (6-27N - 3-23E), food sanitation is unsatisfactory throughout Nigeria. The almost complete absence of refrigeration and storage facilities, and the lack of adequate supervision, result in the processing and marketing of meat, milk and other foods under highly unsanitary conditions. 24/ 42/ 44/

C. Diseases

2. Diseases of animals -- Many serious animal diseases commonly occur in Nigeria. Control efforts are hindered by a shortage of veterinary personnel and by the ignorance and primitive habits of most livestock owners. Other factors militating against an acceptable level of animal health are the continual clandestine introduction of diseased livestock from surrounding territories and the veterinary services' inability to properly examine all animals lawfully presented at border inspection stations. In the absence of a reliable reporting system, the incidence and distribution of various diseases remain as yet unknown. 5/ 16/ 17/ 18/ 32/ 40/ 42/

a. Prevalent animal diseases

(1) Trypanosomiasis -- Trypanosomiasis (T. brucei, T. congolense, T. vivax, T. dimorphon) is the main obstacle to an expansion of Nigeria's cattle industry.

50X1

CONFIDENTIAL

The prevalence of the tsetse fly, the principal vector of this debilitating and often fatal disease, in the southern three-fourths of Nigeria confines most of the cattle to the savannah areas of the Northern Region. In several provinces, the veterinary services provide treatment at mobile camps. The usual fee for an injection with homidium bromide, homidium chloride or antrycide dimethylsulfate is one shilling (approximately 14 cents). Government authorities frequently have to contend with unscrupulous persons who, taking advantage of the tribesmen's reluctance to bring their cattle to treatment-camps, offer injections at the owner's homes at an inflated fee using imitation medicaments. Other trypanosomiasis control measures consist of the application of insecticides and the clearing of brush and riverine vegetation serving as tsetse fly habitats. 15/ 16/ 18/ 20/ 32/ 38/ 39/ 40/

(2) Rinderpest -- Immunization of a large portion of young animals has markedly reduced the incidence of rinderpest, but the disease is still widespread and continues to threaten Nigeria's cattle population. A tissue culture vaccine, produced by the Federal Department of Veterinary Research in Vom (9-44N - 8-47E), has lately been used in some areas, and on its initial promising results the replacement of caprinized and lapinized vaccines is considered a strong possibility. In the fall of 1962, a vaccination campaign, sponsored by the Commission for Technical Cooperation in Africa South of the Sahara (C.C.T.A.), was launched in Nigeria and the neighboring countries of Cameroon, Chad and Niger. This campaign, executed by the veterinary services under supervision of C.C.T.A. officials, will last three years, and is expected to provide inoculations for 8 million cattle. 1/ 8/ 16/ 18/ 40/

CONFIDENTIAL

-6-

CONFIDENTIAL

(3) Contagious bovine pleuropneumonia -- Contagious bovine pleuropneumonia is enzootic in the northeastern provinces, with frequent sporadic outbreaks in other parts of the country. In enzootic areas, veterinarians combat the disease through vaccination (lyophilized KH₃J vaccine) and quarantine of affected or exposed cattle. Complete slaughter of infected and exposed cattle, with payment of compensation, is the method of control in sporadic areas. The clandestine introduction of cattle from adjoining countries having an extremely high incidence of the disease and unauthorized movement of animals within the country, seriously hinder efforts to eliminate contagious bovine pleuropneumonia. 8/ 18/ 32/ 40/

(4) Rabies -- A high incidence of rabies in dogs is a serious menace to man and livestock. Vaccination meets with little interest by the population and is confined largely to European-owned dogs. No cases of rabies in wild animals have been confirmed so far, but the ground-squirrel (Xerus erythropus) is believed to be a reservoir of the disease. The Federal Medical Laboratories at Yaba (6-32N - 3-23E) conduct rabies diagnoses and produce a phenolized vaccine (Paris strain) of sheep origin for human use. Vaccine (Flury strain) for canine prophylaxis is prepared at the laboratories of the Federal Department of Veterinary Research at Vom. 3/ 8/ 15/ 16/ 18/ 32/ 40/

(5) Parasitoses -- A great variety of helminthiasis and ecto-parasite infestations are a serious problem throughout Nigeria, contributing to unthriftiness in all classes of livestock and causing the loss of large numbers of young animals. 16/ 32/ 40/

CONFIDENTIAL

-7-

CONFIDENTIAL

(6) Streptothricosis -- Streptothricosis (locally known as kirchi), a fungal skin condition, is common among cattle and goats. It is particularly prevalent during the wet seasons and causes serious losses through hide damage and debilitation. Attempts to incriminate ticks or flies as vectors, and thus to control the disease through the application of insecticides, have been inconclusive so far. No effective cure for streptothricosis has yet been found. 8/ 18/ 22/ 32/ 40/

(7) Foot-and-mouth disease -- Foot-and-mouth disease, types O and A, occurs in Nigeria. In indigenous ruminants the disease usually runs an extraordinary mild course and frequently remains unrecognized. Thus, no reliable information regarding its incidence and distribution is available. 22/ 32/ 40/

(8) Pasteurella infections -- Pasteurella infections - some of them obviously caused by the agent of hemorrhagic septicemia - are widespread among cattle. Control efforts, however, are largely ineffective, as it is not yet known what specific pasteurella strains exist in Nigeria. 8/ 16/ 17/ 18/ 32/ 41/

(9) "Pneumonia of goats" -- So-called pneumonia of goats is enzootic throughout Nigeria. This highly fatal disease, which is apparently unrelated to caprine contagious pleuropneumonia and whose causative agent remains as yet unknown, responds to early treatment with sulfonamides and heavy doses of chloramphenicol. 16/ 17/

(10) "Staggers" -- "Staggers" is a highly fatal disease of horses in southern Nigeria. It is characterized by nervous symptoms resembling, in various degrees, cerebral hemorrhage, encephalomyelitis and rabies. A virus isolated from the brain of an affected horse did not appear to be related to any of 37 other viruses with which it was compared. The name Nigerian horse virus has been proposed for the causative agent of "staggers." 17/ 21/

CONFIDENTIAL

-8-

50X1

(11) Poultry diseases -- Despite control efforts by Nigerian veterinary authorities and AID experts, poultry diseases continue to cause heavy losses. Newcastle disease is by far the most common and destructive disease, followed by fowl pox, infectious coryza and other respiratory infections. Spirochaetosis and aegyptianellosis likewise occur frequently. Recent reports indicate that fowl cholera, fowl typhoid and avian tuberculosis are not as widespread as had hitherto been believed. 27/ 32/ 34/ 36/ 40/

b. Other important animal diseases -- Other important animal diseases are blackleg, anthrax, tuberculosis, brucellosis, salmonellosis, piroplasmosis, coccidiosis and vitamin-mineral deficiencies. 8/ 16/ 17/ 18/ 32/ 40/

D. Veterinary organization and administration

1. Civilian

a. Organization -- Responsibility for veterinary field activities in Nigeria is divided among the three regional governments. The Veterinary (Field Services) Division of the Ministry of Animal and Forest Resources, Kaduna (10-31N - 7-26E), Northern Nigeria; the Veterinary Division of the Ministry of Agriculture, Enugu (6-26N - 7-29E), Eastern Nigeria; and the Veterinary Department of the Ministry of Agriculture and Natural Resources, Ibadan (7-23N - 3-54E), Western Nigeria, are the principal veterinary authorities in their respective regions. In the Northern Region there exists also a small agency, known as the Veterinary (Research) Division of the Ministry of Animal and Forest Resources, which directs three laboratories for diagnostic work and disease investigations.

50X1

50X1

The veterinary services in each region are organized on a provincial basis, calling for a Provincial Veterinary Officer, one or more Veterinary Officers and a force of Veterinary Assistants in each province. However, due to a shortage of veterinary officers, not all professional positions can be filled, leaving many provinces without qualified veterinary supervision. In some provinces, particularly in the Northern Region, so-called Native Veterinary Assistants serve as intermediaries between veterinary authorities and the local population.

The Federal Department of Veterinary Research of the (federal) Ministry of Economic Development has the responsibility for veterinary research, the production of biologicals and the training of Veterinary Assistants. With headquarters in Vom, the Department maintains research and vaccine production laboratories, and a veterinary assistants' school. The Federal Department of Veterinary Research is also responsible for the veterinary service within the Federal Territory of Lagos and the veterinary supervision of the Agege (6-38N - 3-19E) Dairy Farm on behalf of the Western Region's Veterinary Department. ^{6/ 7/ 9/ 11/ 15/ 16/ 17/ 40/ 42/ 43/}

b. Legal controls

(1) Licensure -- The Veterinary Council of Nigeria, guided by a 1952 ordinance, makes recommendations for the licensure of veterinarians and acts as a disciplinary board on professional conduct. The Council is empowered to examine applicants not holding the qualifications prescribed by the ordinance. ^{7/}

(2) Quarantine -- Chapter 54 (Diseases of Animals) of the 1958 edition of the Laws of the Federation and of Lagos governs the import of domestic and other animals. ^{6/}

50X1

50X1

[REDACTED]

(3) Inspection -- The sanitation of meat, milk and other food products, while largely governed by federal laws, is the concern of regional and local governments. In the larger cities inspection is conducted by a numerically inadequate force of public health inspectors who lack proper training for this task. In smaller communities slaughter, dairying and market operations are carried out without any sanitary supervision. 4/ 25/ 42/ 43/ 44/

c. Professional veterinary organization -- The Nigerian Veterinary Association is Nigeria's professional veterinary organization. Although without official functions, the Association, from time to time, makes recommendations regarding compensation and recruitment of veterinarians to federal and regional government authorities. 2/

d. Veterinary research -- Despite a shortage of personnel, some creditable veterinary research is performed by the Federal Department of Veterinary Research and the Veterinary Section of the West African Institute for Trypanosomiasis Research, both located at Vom. Major research subjects are the epizootiology, serology and immunology of rinderpest, Newcastle disease, fowl pox, contagious bovine pleuropneumonia and streptothricosis, as well as the development of new vaccines against these diseases. Work on trypanosomiasis deals with epizootiological, pathological and chemotherapeutical aspects.

The practical application of research findings is the concern of the Veterinary Technical Committee which, however, has no executive powers and acts solely in an advisory capacity. 7/ 18/ 19/ 37/ 40/

f. Emergency veterinary services -- Nigeria's veterinary services lack sufficient qualified personnel and would be unable to cope with any major emergency.

50X1

CONFIDENTIAL

2. Military veterinary organization -- There are no military veterinary activities in Nigeria.

E. Veterinary manpower -- The country's force of approximately 25, largely expatriate veterinarians, is far too small to render adequate service. Efforts are being made to alleviate this shortage by providing scholarships for training abroad and by offering attractive salaries and other benefits to foreign veterinarians. Nigeria's professional veterinarians are aided by a force of Veterinary Assistants, which is likewise numerically insufficient. In many provinces so-called Native Veterinary Assistants, who rarely have had any formal training, serve as interpreters and intermediaries between veterinary authorities and local tribes.

The Veterinary School at Vom conducts a two-year course for Veterinary Assistants, graduating 25-30 students annually. Junior laboratory technicians are also trained at this school. The Faculty of Agriculture and Veterinary Science of the University College, Ibadan, apparently offers some basic instruction to students intending to study veterinary medicine abroad. 2/ 7/ 9/ 31/ 32/

E. Veterinary facilities -- The research and vaccine production laboratories and the veterinary assistants' school of the Federal Department of Veterinary Research at Vom are Nigeria's principal veterinary facilities. Significant and, likewise located at Vom, is the Veterinary Section of the West African Institute for Trypanosomiasis Research, an institution jointly supported by the governments of Nigeria (53%), Ghana (38%), Sierra Leone (4%), Gambia ($\frac{1}{2}$ %), and the Commonwealth Development and Welfare Organization (C.D. & W.) $4\frac{1}{2}$ %.

Most of the regional and provincial veterinary activities are conducted in temporary camps and in inspection stations along the borders, but small diagnostic

CONFIDENTIAL

-12-

50X1

[redacted]

and treatment laboratories exist in Kaduna, Enugu, Ibadan, Kano (12-00N - 8-31E) and Maiduguri (11-49N - 13-10E). The federal veterinary clinic in Lagos provides treatment for pet animals, cares for the horses of local racing clubs, and also aids farmers in the surrounding countryside. 7/ 9/ 15/ 16/ 17/ 18/ 19/

G. Veterinary supplies and materials -- The laboratories of the Federal Department of Veterinary Research at Vom virtually meet all of Nigeria's requirements for animal biologicals. Pharmaceuticals, instruments and other equipment, however, are entirely obtained from abroad. 7/ 18/

H. Reference data -- Not included in this report.

I. Comments on principal sources

1. Evaluation -- Publications by Nigerian federal and regional veterinary authorities, and reports in African and international veterinary and medical journals, provided adequate information for a reasonably comprehensive evaluation of animal diseases and veterinary services in Nigeria.

2. List of sources (in order of importance)

- 1) Inter-African Bureau for Animal Health. Bulletin of Epizootic Diseases of Africa. Various issues. Publications Bureau, Watergate House. London. 1955-1962. (Unclassified)
- 2) Federation of Nigeria, Department of Veterinary Research. "Annual reports of the Department of Veterinary Research for the years 1957-58, 1958-59, 1959-60." Lagos. 1959-1961. (Unclassified)
- 3) Ministry of Animal Health and Forestry. "Annual reports on the Veterinary Division of the Ministry of Animal Health and Forestry of Northern Nigeria for the years 1957-58, 1958-59." Government Printer, Kaduna. 1961-1962. (Unclassified)
- 4) Ministry of Agriculture Eastern Nigeria. "Annual reports of the Veterinary Division, 1956-57, 1957-58, 1958-59, 1959-60." The Government Printer, Enugu. 1958-1961. (Unclassified)
- 5) Her Majesty's Stationery Office. "Federal Nigeria, Annual Report 1957." London. 1957. (Unclassified)
- 6) Liverpool School of Tropical Medicine. "Annals of Tropical Medicine and Parasitology." Various issues. Liverpool University Press. 1958-62. (Unclassified)

50X1

Page Denied

Next 3 Page(s) In Document Denied