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NARRATIVE REPORT
ON THE
MALI CIVL PROJECT

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Prefatory Note

On October 3, at a meeting in Dakar, I was asked by the Directors of ADO/Dakar and REDSO/WA to prepare the information on the Central Veterinary Project in Mali requested in State 193979 of September 28. Accordingly, the brief stopover in Mali, which I had planned in connection with the initiation of the work of the Mali Livestock Project Design Team, turned into a longer visit devoted largely to the CVL.

Although nearly totally unfamiliar with the CVL project, I did fortunately have some background on the Mali livestock industry. This has provided a convenient and, I think, appropriate framework for the report. Rather than take up the questions posed in the cable one by one, I have tried to deal with the CVL in the larger context of the Mali livestock sector, the activities of AID and other donors in that sector, and the drought recovery effort.

In reviewing the CVL project and its current status, one is struck by how CVL's problems readily divide themselves into short term and longer term. There are a number of immediate steps that should be taken to enable CVL to maximize its contribution to the drought recovery effort. Fortunately, my visit to Bamako coincided with that of the Fei Task Force and we were able to discuss the inclusion of some of the immediate commodity requirements of the CVL as a possible item in the Task Force's recommended short term program for Mali.

It is hoped that this report will also contribute to

decisions in AFR necessary for the CVL to address some of its longer term problems, particularly technical assistance for laboratory operations and research, follow on commodities and training, and probably funds for local operating costs. Such assistance could transform the CVL from an embarrassment for both countries, limping from one crisis to the next, to a truly functional institution playing an extremely important role in support of the development of the Mali livestock sector.

One is similarly struck by the fact that the larger success of the CVL will also be dependent on external factors -- e.g., the effectiveness of the Livestock Service and the financial viability of the GOM -- over which AID alone has little control. However, AID is but one of a number of donors that are actively involved in the Mali livestock sector. Building on earlier contacts with the donors,* AFR should encourage regular consultations in Bamako among the donors, perhaps under the auspices of the FED or the FAC, and thereby address some of the external factors which impinge on the success of the CVL as well as other prospective AFR investments in Mali livestock development.

I would like to take this opportunity to thank those in Bamako who cooperation and patience made this report possible, particularly Mr. H. H. Carver, AID Adviser to the CVL, Dr. Sylla its Director and his staff, and Mr. Thor Kuniholm, the Charge d'Affairs. Messrs. Rex. L. Henry (ADO/Dakar) and Lloyd Clyburn

* A donors meeting on West African livestock was held in Brussels in December 1972 and AFR has periodic meetings with other major donors to review and coordinate their African programs.

(AFR/CWR) reviewed most of the report on October 20 and made a number of helpful suggestions. Finally, without the able help of Mrs. Coulibely, who served as interpreter, translator and secretary, this report could never have been written.

Bamako, October 23, 1973

Narrative Report on the Mali CVL Project

A. A Framework for the Consideration and Planning of the CVL Project

1) Importance of the Mali Livestock Sector^X

The livestock industry of Mali plays a major role in the economy of the country and has great potential for future dynamic growth. Domestic meat and milk production are, respectively, major items in the diets of Mali's urban and nomadic populations, while the exports of cattle to the markets of coastal Africa, particularly the Ivory Coast and Ghana, represent Mali's major export. Cattle exports in 1970 totalled about \$25 million or 36% of total exports, far exceeding cotton, the number two export, which was less than half that amount. Total meat and milk production was estimated in that year as 14.5% of GDP and comprised the major occupation of the country's 600,000 nomadic and semi-nomadic herdsman. It also comprised a major source of income for thousands of sedentary farmers as well as numerous traders, butchers and others who are occupied with cattle-related activities on a full or part time basis.

Recent studies of the Mali livestock industry indicate that it has a very bright growth potential owing to the prospect of a sustained increase of demand in the coastal markets as well as for domestic consumption. The higher rates of growth for demand for cattle for slaughter as compared with the slower rates of growth of supply (from neighboring countries as well as from Mali)

^XThe following observations make liberal use of two recent AID-financed studies, "Mali Livestock Design Study" (March, 1973) and "Livestock Production and Distribution in the Malian Economy", J. Dirck Stryker, August 20, 1973.

lead to the expectation of a substantial increase in Malian beef and cattle prices. The effect of the recent drought, which may have decreased the nomadic herd by as much as 25%, will, of course, reinforce the upward price trend by restricting supply.

Thus the Mali livestock industry, which has certain comparative advantages over the cattle industries in neighboring countries, faces a growing domestic and export market and a growing value for its product. In addition, the industry has another characteristic which should make its development of particular interest to external donors. Owing to the extremely efficient and competitive nature of its cattle distribution system, which keeps profit margins low, gains in income resulting from increased sales or prices of cattle tend to get passed back to the producer, i.e. the nomad or the sedentary farmer. Thus investments in Mali livestock should tend to benefit the rural population.^x

However, while there is great potential for the growth of meat production in Mali, the realization of that potential will require substantial investments and strengthened government services. These will require substantial external investments and, over the long term, increased governmental expenditures. One of the major problems is the inability of the GOM to tap some of the growth of income in the livestock sector in taxes as a means of financing services for that sector.^{xx} Indeed, there is evidence that the

x One of the effects of the drought, however, has been to increase economic disparities between those who lost everything and those who salvaged part or all of their herds. One of the projects presented by the GOM to the Fei Task Force involved assistance to help nomads reconstitute their herds.

xx A major contributing factor to this problem is the inadequacy of government services to the livestock industry.

livestock service has suffered a decline in its operating budget in recent years and in 1970 only received a part of the 5.4% of the total operating budget allocated to agriculture. A large part of the reason is that the livestock sector only contributed 7% of total government revenue in that year.

2) AID's Livestock Strategy in Mali

As a result of many of the foregoing considerations, AID has in the past year evolved an approach to livestock development for Mali which aims at helping the industry capitalize on its opportunities for export while simultaneously trying to alleviate seasonal shortages on the Bamako market.^x Following a meeting in Brussels with FED, FAC and the World Bank on West African livestock in late 1972, a mixed AID/GOM team carried out the equivalent of a sub-sector assessment of the Mali livestock industry in January-March, 1973. The recommendations of the team were accepted by AFR with some modifications, and a grant agreement was signed with the GOM in June 1973 to design a series of projects to test and hopefully confirm the validity of the strategy recommended by the team. A second AID-financed team is currently working with Malian counterparts on the design of these projects which, if successful, could be replicated in other areas of the country and the region by AID or other donors.^{xx}

The projects include (1) two pilot projects in mixed

x

The problem of providing meat to the Bamako market is discussed in the two reports noted earlier and is not relevant to this paper.

xx

Both of the AID teams also benefitted from the advice and cooperation of a UNDP livestock technical assistance group (see section on other donors, below).

farming area for encouraging increased livestock production and finishing for slaughter by sedentary farmers, (2) a pilot project to help the traders of the Segou area to purchase and feed cattle on their own land for the urban markets of Mali, (3) two pilot holding areas to test the economic and commercial feasibility of dry season feeding investments, one near Segou for nomadic herdsmen, sedentary farmers and traders, one near Bamako for wholesale butchers, (4) a pilot holding area in a higher rainfall zone of Mali now infested with tsetse to test the costs and benefits of clearing and year around livestock management of natural grazing, (5) an animal health activity for nomadic herdsmen and in the sedentary farming areas described above, utilizing mobile teams or expanding the existing services of the Mali Livestock Service and aimed at reducing calf mortality. Finally, a livestock credit scheme to permit herdsmen, farmers, traders and wholesale butchers to acquire cattle to participate in the foregoing activities and to provide working capital for administering the three or four pilot projects is included.

These projects are intended to test whether certain structural or institutional changes can be introduced which will permit the livestock industry to respond more effectively to its future opportunities. Specifically, they are intended to increase the specialization of the Sahelian zone for breeding young stock, expanding sedentary livestock husbandry, increasing the use of agricultural by-products for supplementary feeding, development of the higher rainfall zones for cattle raising, and generally providing incentives for the commercialization of cattle and increasing production and offtake.

In addition to the projects, the team recommended a series of complementary studies including two in the field of animal health: one directed at animal disease and parasite control problems and one directed at nutritional experiments and feeding trials. These would complement the animal health program activity noted above.

3) Other Donor Investments in the Mali Livestock Industry

As in other areas of the economy, external aid for livestock development represents practically the sole source of capital investment since nearly all of central government expenditures are devoted to current operations. The GOM has attempted to coordinate and rationalize external investments in the livestock sector by designating certain areas for each donor. The European Development Fund (FED) has been concentrating on southern and central Mali. The World Bank is considering the Niger Delta area. The FAC has been financing some of the data collection and studies which are serving as the basis for project selection by other donors. AID has been asked to concentrate largely on the intermediate rainfall area and sedentary zone and to undertake additional studies. Both the U.N. and FAC are providing technical assistance to key GOM agencies concerned with livestock.

(a) The FED

At present the FED is the major external donor in the livestock sector. It financed improvements for the Bamako slaughterhouse three years ago and, more recently, has sponsored several important studies including a comprehensive survey of southern Mali, identifying projects for future support, which is currently being reviewed by the GOM. Production projects include a ranching project at Niono (\$1.3 million) which will be tied in with a finishing

operation using irrigated pasture land, with the objective of shipping meat by refrigerated truck or plane to Abidjan. The FED is also financing a pilot project (\$3.3 million) at Yanfolila in the south which aims at breeding and distributing improved type of Ndama cattle (which has a greater degree of tsetse fly resistance). In addition, FED is financing two small pilot projects at Fana and Sikasso involving the use of supplementary feeds (cotton seed) by sedentary farmers. Finally, it should be noted that the FED allocated some \$750,000 of the \$9.4 million made available for emergency drought relief for livestock and veterinary supplies, equipment and operational expenses (including \$300,000 for CVL vaccines).

(b) FAC

FAC is active in the livestock sector in two important ways. It provides substantial technical assistance to the Livestock Service and to the Agricultural Economic Institute which is concerned with research in animal husbandry, forage and pasture research and animal nutrition. Second, FAC has financed a number of surveys and project studies which have been of great value in understanding the Mali Livestock situation and in facilitating project selection. Examples are the regional study (jointly financed with AID) of the meat supply for West Africa and the project studies for ^{the} FED-financed ranch at Niono and the proposed IBRD project at Mopti. In addition, over the past 5-6 years FAC has provided the livestock services with veterinary equipment and supplies totaling over half a million dollars.

(c) United Nations

The U.N.'s major contribution is the provision of a multi-disciplinary technical advisory team to OMBEVI (UNDP project Mali 523) the Malian agency concerned with livestock policies and the planning and coordination of livestock development. Financed by a \$1.3 million UNDP grant with FAO as the executing agency, the six year project aimed at increasing the commercialization and efficiency of Mali livestock and developing OMBEVI's staff. The FAO team worked closely with the AFR/GOM group that produced the Mali livestock study and is now giving helpful professional assistance to the design team.

(d) IBRD

The World Bank has under consideration a large project in the Niger Delta area (Mopti) which has cost estimates ranging up to \$18 million. The objective would be to make better use of the interior delta area of the Niger for dry season grazing. A project appraisal mission is expected to review the project before the end of the year.

The IBRD is also financing, on a grant basis, a six month study beginning in October to estimate the effect of the drought on the Malian national herd. The census will include provision of prophylactic treatment for cattle against trypanosomiasis.

(e) Germany and Others

Germany financed a livestock study of the Gourma area in Eastern Mali in 1970 and carried out a less than successful well drilling program in that area more recently at a cost of \$3 million. Yugoslavia has been involved in an unsuccessful loan project which financed abbatoirs for Mopti, Segou and Gao. Libya has also reportedly provided some assistance in the livestock area.

The conclusion one reaches is that (a) there are a number of donors actively assisting in the development of the livestock industry, and (b) the GOM is doing a creditable job of coordinating external inputs. Mali is elaborating a livestock strategy which AID and other donors can support and relate to. AID's contribution to the CVL should be considered in the context of donor inputs into the sector as a whole.

4) The Role of the CVL in the Livestock Sector

Given the importance of the livestock sector for Malian development generally, and given the emphasis that AID and other donors are directing toward the expansion and greater efficiency of that sector, the importance and role of the CVL becomes clear. Essentially, the CVL, together with the Livestock Service and the research stations of the Agricultural Economic Institute, ^x provide the services and supplies necessary to protect or enhance the health of the Malian national herd. Their effective functioning is a precondition to the success of the investments which AID and other donors are considering, or are in the process of making, in the livestock industry. The need for these institutions to perform their roles is all the more important at this time when much of the herd has been weakened by the drought and is more susceptible to disease and parasites.

The importance of the CVL's role is illustrated by a recent report by an FAO expert dealing with emergency needs of the six Sahelian drought-stricken countries for the forthcoming vaccination and treatment campaign. ^{xx} The report

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All of these institutions are units within the Ministry of Production. See See Annex A for an unofficial organizational chart of that Ministry.

xx "Reports on Six Sahelian Countries Related to Eventual Financial Assistance Through OSRO for Coming Vaccination Treatment Campaigns", P. Haugaard, September 13, 1973.

notes serious incidence among Malian cattle of Rinderpest, CBPP, Anthrax, Blackleg, Pasteurellosis, Trypanosomiasis and Helminthiasis. It recommends a campaign involving 9.5 million doses of vaccines for the first five diseases, the vaccines to be produced by the CVL.^x The CVL will thus be playing a critical role over the next 6-8 months in attempting to alleviate some of the impact of the drought on the health of Mali's cattle. Although CVL's research and diagnostic programs are important, particularly as they relate to improving the quality and effectiveness of its vaccines, the main and most essential function of the CVL at present is the one of producing the vaccines necessary to meet Mali's current and future requirements.^{xx}

In addition to providing an essential service to the livestock sector generally, the CVL will provide a supporting function for the AFR Mali livestock program that is currently being designed. CVL vaccines and diagnostic services will be necessary in support of the animal health extension activity that will be undertaken in an effort to reduce the rate of calf mortality among the nomadic and sedentary herds and to contribute to the efficiency of the growth of the cattle in all other phases of the project. This component of the program is the one which will reach the nomads most directly. In addition, CVL facilities will be called upon to support the animal health and animal nutrition research activities which are included in the program. Thus there is a close linkage between the CVL project and the Mali livestock program.

x

Trypanosomiasis and Helminthiasis require prophylactic inoculations to depress the effects of the disease rather than inoculations to provide immunity. CVL does not make the drugs for this purpose.

xx

See Annex B for an evaluation of the CVL's "regional role".

The role of the CVL is complemented by the research in pastures and animal nutrition being carried out by the field stations of the Agricultural Economic Institute at Sotuba and Niono.

However, the Malian agency most directly related to the CVL is its "customer", the Livestock and Animal Health Service of the Ministry of Production. The Livestock Service, with headquarters in the capitol, operates through six regional organizations, each under a Regional Director, and 42 sector services. Below the sector are about 200 veterinary posts. This apparatus constitutes the "delivery system" through which the vaccines reach the animals. The Malian Livestock Service enjoys, on the whole, a good reputation for technical capability, responsibility, and gaining the confidence and cooperation of the herders, without which it could not operate. Some of the District organizations are apparently very well administered. Its principal problems are a chronic lack of operating funds, lack of vaccines and shortage of vehicles, a problem more recently alleviated by the FED assistance.

There are reports that a reorganization of the various livestock agencies may be under consideration by the GOM. The objective would be to facilitate coordination among the various functions -- production, research, outreach, etc. Also under consideration is the idea of using the IBRD project at Mopti as a pilot for testing an integrated approach at the regional level before attempting to apply it nation-wide.

5) Public Sector Finances as They Relate to the Livestock Services

Although the objective of the GOM since 1970 has been to eliminate its budget deficit (which is partially covered by France) and bring the country's balance of payments into equilibrium, these objectives were far from having been reached by early 1973 when the country was running a deficit of nearly \$10 million, of which half was covered by France. More recent unofficial information indicated that the situation has become far more serious. The total deficit is now considered to be in the magnitude of about \$20 million or about one-third of total expenditures. Some \$11 million of the deficit is being financed by FAC and FED.^x Since the GOM is restricted in the amount it can borrow from the Central Bank to about \$1.3 million, there is considerable uncertainty as to where the government will find the unfinanced balance of nearly \$8 million. Traditionally, the GOM has scraped through the end of the budget year by simply not paying deferrable expenses, (although its latitude on this is circumscribed by the fact that 65% of the budget represents personnel salaries which are not deferrable from a political point of view). It is clear, therefore, that this year the ability of the government to meet operating costs (other than salaries) will be more limited than ever, and the prospect is that the budgetary situation will be very tight

^xThe FED contribution (\$3.2 million) is part of its emergency drought assistance program and represents compensation to the GOM for the latter's suspension this year of the cattle tax.

for some years to come.

The GOM budget problem has important implications for livestock development. As indicated earlier, the GOM institutions dealing with the livestock sector -- the Livestock Service, the Agricultural Economic Institute, OMBEVI, and the CVL -- have traditionally been among the agencies which first feel the effects of budgetary constraints. Although the importance of the livestock sector is understood, the fact that it contributes so little to total government receipts makes it an easy target for cuts. It is quite possible that the livestock services can, over the longer run, be established on a firmer financial footing through changes in GOM tax measures aimed at tapping some of the additional income generated by the livestock sector because of higher prices.

A number of suggestions on this are offered by Dr. Stryker. However, this possibility is undoubtedly some years away and will require considerable further analysis and acceptance.

For the next few years, therefore, donor organizations interested in the development of the livestock sector will be obliged to consider financing at least some of the local operating costs of the GOM organizations functioning in that field. This amounts to simple recognition of the financial realities which confront the GOM at this time and for several years to come. As noted earlier, a considerable portion of the \$750,000 donated by FED for the livestock services has been allocated for current operating costs. Additional emergency assistance, part of which will also finance

operating costs, is also being planned by the FAO-administered Sahelian relief fund. It is understood that these grants will finance such costs at least until March, 1974. Beyond that time non-salary operating expenses will probably again become a problem. In regard to the CVL, AFR should be prepared to include local cost financing to meet this problem through the remaining period of the project. Meanwhile, AFR and other donors should jointly consider with the GOM the more general problem of ways in which the livestock sector can better support the livestock services and how such support can be phased in to replace external aid for current operations.

6) The CVL: past problems and present status

The CVL was first conceived in 1963 in connection with the planning for the West African Rinderpest Campaign. In the decade that followed this project has had more than its share of problems and it is still not entirely out of the woods. No attempt will be made in this report to recapitulate the sorry history, much less to assess responsibility. But since the past has important implications for future AFR planning, it should be taken into consideration.

Conceived as a source of vaccine for a number of countries in West Africa, the CVL is oversized for Malian needs.^x Moreover, as noted in CVL's 1972 annual report, a large number of design errors and deficiencies were committed by the architect/engineers who prepared the plans. The most serious ones have required subsequent alterations for correction.

^x

For example Haugaard's estimates of Malian requirements for vaccines for the 1973/74 campaign represent 3-33% of CVL's engineered capacity depending on the vaccine in question.

Financed by a Development Loan of some \$2 million, the construction work took an inordinate amount of time to complete. For reasons that are thoroughly documented elsewhere, serious errors occurred during the construction of the facility and faulty installation of the equipment made much of it initially inoperable.

Since CVL became operational in June 1972 it has been plagued by one breakdown after another. ^x For periods, as when the water pumps failed, the laboratory has not been able to function at all with the result that Mali has had to continue importing some of its vaccine requirements from abroad. ^{xx}

At the present time, the laboratory is still in a precarious position as it faces the 1973/74 vaccination campaign. Delays in the construction of a well and water tower for stand-by water supply cause the CVL to be dependent on municipal water and vulnerable to cut-offs during the dry months (as happened earlier this year). The same applies to the CVL's source of electricity owing to the need for repairs for the stand-by generator. Delays in the construction of fencing expose the installation to a security problem. Other problems which could interfere with meeting demands for vaccines are the absence of adequate cold storage for stockpiling and technical difficulties in the production of rinderpest vaccine. ^{xxx} Shortage of

x

The CVL "opened its doors" in January 1972 but the facility was not turned over to the GOM until June.

xx

Some of these imports are reported to be the results of prior commitments

xxx

ADO/Dakar questions the need for additional cold storage space.

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local operating funds is not a problem this year owing to increased GOM support and the assistance being made available by FED.

AID has contracted with an engineering firm to correct most of the major deficiencies in design and installation. This work, including repair of the generator, should be completed by December or January. However, the water and security problems may take longer unless action by the local contractors can be expedited.

AID's past difficulties in managing this project have been a major irritant in U.S.-Malian relations and a source of continuing embarrassment and frustration for both parties. During one such crisis last year the Chief of State, Colonel Traoré, felt obliged to call in the American Ambassador and ask for an explanation. However, it should be pointed out that Malian unhappiness with U.S. performance has been at least partially offset by the work of the AID Veterinary Adviser to the Director of CVL. His positive attitude, diligence and ingenuity in coping with crises has earned much Malian good will and he was recently awarded a high decoration by the Malian government.

At present time, CVL can expect to face requirements for about 9.5 million doses of vaccines during the forthcoming campaign year. These include Rinderpest (3.3 million), CBPP (3.3 million), Anthrax (0.3 million), Blackleg (1.0 million) and Pasteurellosis (1.7 million). CVL has on hand a stock of 1 million doses of rinderpest vaccine. Those at CVL affirm that the laboratory can meet demand over the coming year providing production

is not interrupted by one or more of the causes noted above. To do this, CVL's performance this year must be dramatically superior to last year when only 400,000 doses of CBPP and 1.6 million doses of Rinderpest vaccines were produced.^x

As indicated earlier, the power problem should be corrected by the end of the year by the engineering firm now at work. The water problem could be solved fairly quickly if the well drilling contract can be implemented rapidly and an emergency pump installed until the tower is built.^{xx} During the visit of the Fei Task Force in October it was agreed to include the cost of the pump plus funds for procurement of imported commodities to assure production of this year's requirements for CBPP vaccine within the recommended "short term" program for Mali. If construction of the fencing can also be expedited,^{xxx} CVL should be in a much more secure position in the near future.^{xxxx}

x

1973 production figures show a major improvement in Rinderpest production (3 million doses produced to date) but with production of other vaccines continuing to lag: pasteurellosis (87,000), CBPP (300,000), Blackleg (175,000).

xx

Discussions with REDSO staff in Abidjan October 15 indicate that the contract has been funded although the Malian depositing bank has apparently not yet received the funds from the disbursing agent in Paris.

xxx

The contract for the construction of fencing (and housing) has reportedly just been signed.

xxxx

However, the continuing problem of faulty design and installation is illustrated by the fact on the day these pages were written CVL had its power cut off due to faulty design of the building housing the electrical equipment. Defects in the installation of the underground cable were also discovered. Manually controlled operation of the stand-by generator (whose regulator also requires repair) prevented the loss of stocked vaccines while the line was being repaired.

B. Objectives of the CVL and Priorities for Future AID Assistance

The objectives of the CVL may be stated as follows, in descending order of priority. This statement reflects the views of the AID adviser to the Director of the CVL and is concurred in by the animal health adviser of the livestock design team, ADO/Dakar and REDSO/WA.

1. The most urgent and important objective of the CVL is to become the dependable and sufficient source of vaccine for the Mali livestock industry beginning with the present vaccination campaign. This involves producing in the neighborhood of 10 million doses of vaccine per year of which 70% would be for rinderpest and CBPP, the two diseases which pose the greatest threat to Malian cattle.

2. The next objective would be to initiate research activities designed to improve the quality and effectiveness of the vaccines produced by the CVL, beginning with the CBPP vaccine. The latter is subject to considerable criticism -- both by Malians and outside observers -- for its short shelf life and the relatively weak degree of immunity which it provides. Also, the short shelf life after manufacture prevents stocking in advance.

x E.g., the IEMVT study of the Mopti region of September, 1972 notes (pp. 47-8) that the presently manufactured vaccine has little value three weeks after manufacture and recommends producing a freeze dried vaccine. However, there is some doubt that the freeze dried vaccine has a sufficient strength to be effective. The FAO committee on CBPP is not currently recommending its use. Therefore, the problem with the CBPP vaccine produced by CVL may not be a function of CVL's production methods but of the effectiveness of that vaccine in general.

An immunity testing program is considered to be a necessary corollary to the effort to improve vaccine quality. This would involve both follow-up tests of immunity of animals vaccinated in the field as well as laboratory tests of vaccine behavior and animal reaction under controlled conditions at CVL.

3. Third in importance is the animal health and nutrition research activities recommended in the Mali Livestock Design Study and presently being designed by the design team. This would involve laboratory work and field investigations at the CVL by a parasitologist. It would be directly related to support of the animal health effort contained in the Mali Livestock Program, and directed to reducing the rate of calf mortality in the Sahelian Zone. The nutrition work would involve collaboration with the Sotuba Research Station of the Agricultural Economic Institute. Laboratory work at CVL on the bio-chemical properties of various feeds and forages would be related to the field trials and the measurement of animal response and weight gains to various rations at Sotuba. Emphasis would be placed on trace elements in relation to reproduction efficiency and general health.

4. An additional area of CVL research which is considered of great importance for Mali would be a program of entomological research on the characteristics and habitat of various types of tsetse flies found in Southern Mali. Such biological research would be related to a proposed effort to undertake a survey and mapping program of that region and to plot the levels of infestation and varieties of flies.^x

^x The field survey and mapping would not necessarily be performed by CVL but should be carried out in close cooperation with CVL. CVL might also contribute to the training function. External assistance, preferably by the UK, FED or FAC would be required.

A mapping program of this kind is considered necessary for any large scale clearing operations of that area of Mali -- an area having a high priority for the future growth of Malian livestock production.

It is believed that these objectives should form the guidelines for the development of the CVL over the period of at least the next three years of AFR assistance to the CVL. Toward the end of FY 1976 these objectives should be reviewed, and possibly modified in the light of accomplishment or changing circumstances. In particular, the review should include consideration of research relationships with ILCA, which should by then be planning its own research program, and the research activities of the various laboratories associated with IEMVT.

An objective underlying all of the foregoing points is to institutionalize the production and research programs of the CVL and thus the training of Malian professional staff to carry on these programs after AFR assistance terminates. This applies particularly to the production program. In regard to research, it would be desirable for the CVL -- as with other research centers in Africa -- to serve indefinitely as a base for visiting scientists working with their Malian colleagues on Malian and regional problems. This is implied in the concept of CVL as one of ILCA's outreach stations.

Another underlying objective is for CVL to broaden the base of its external support and reduce its present dependence on AID. A start on this has already been made with substantial material assistance forthcoming this year from FED and possibly FAO/OSRO as well as technical assistance from the U.N. in the form of an IAEC-provided immunologist.

Nevertheless, it is believed that CVL leadership and the GOM could be more vigorous in soliciting help from other sources, particularly the UK and FAC. The UK is in a particularly advantageous position to provide some of the scientific talent necessary for the CVL to address the program priorities noted above. FAC assistance is complicated by bad relations and personality conflicts between the Malians and IEMVT dating back to the latter's role here before independence. Although one has the impression that, for its part, FAC would now be prepared to help CVL with some of its operating costs if asked, GOM officials are distinctly unenthusiastic about having such assistance.

AFR assistance over the planned FY '73-78 period should be designed to support the priorities indicated above. This would involve (a) supplementary equipment and supplies and spares to put the production laboratory on a sound and dependable footing and to support the research operation, (b) technical assistance to strengthen the production laboratory operation, initiate research activities in the above noted areas, and to train the managerial, scientific and sub-professional staff of the CVL, (c) provision for training Malian staff in the U.S. or in Africa in various indicated skills, (d) funds for meeting a portion of the operating costs of the CVL over the period of the project.

C. Recommended AID Inputs

The AID inputs recommended below and shown on table II are designed to support the objectives and priorities outlined in the preceding section. A general review of the program should be carried out in FY 1976 to adjust, if necessary, inputs recommended for FY 1977-78.

1) Technical Assistance

Expatriate talent should be provided in three major areas (a) overall advice to the Director and management of the project, (b) scientific talent to strengthen the operation of the production laboratory, to undertake research and to train Malian professional staff in these areas, (c) training the sub-professional staff of the CVL in the operation, maintenance and repair of the facilities.

In the first area, two Direct Hire positions are recommended. The incumbent veterinarian who is serving as adviser to the Director would continue to perform present functions with primary responsibility for the functioning of the total facility. An additional position is recommended as Project Manager with responsibility for planning, coordinating and monitoring all AFR inputs into the Mali livestock sector -- both the CVL as well as the complex of activities proposed in the Mali Livestock program.^x

^x If the latter program should not materialize, this position would be terminated after two years since the CVL alone does not warrant two DH positions beyond that period.

Three areas of scientific talent have initial priority. The first is that of a microbiologist who would also serve as adviser to the Malian who is in charge of the production facility. He would be concerned with the efficient management of the production facility. In addition, working in collaboration with the U.N.-financed immunologist, he would be involved in the work of raising the quality and lengthening the shelf life of the vaccines themselves. This position is the one most urgent for the immediate needs of CVL. It should be continued for the next four years, by which time the Malian counterpart should be in a position to fully exercise these functions.

The second area of expertise is in parasitology. It is believed that one of the most pressing causes of the high calf mortality rate in the Sahelian zone is a result of parasitic infestation of calves. Thus the animal health activity of the Mali Livestock Project will give a high priority to the parasite problem. The parasitologist stationed at CVL will provide the laboratory and field contribution through, among other things, fecal tests to determine the types and degree of infestation and the testing of available de-worming compounds, especially in relation to the nutritional status of calves.* This program should also be continued for four years and should likewise involve the training of a Malian counterpart.

A third area of scientific technical assistance which deserves priority is the area of animal nutrition. Since CVL research in this field must be closely coordinated with research

*The VAC calf deparasitising campaign had to be stopped this year because of mortality rate of weak, malnourished calves from deparasitising drugs.

at the field stations (especially Sotuba), this aspect of CVL's work should only be activated after the Mali Livestock program has been approved and the animal nutrition activity therein has been organized. It is believed that two years of work by a biochemist would be sufficient to carry out the necessary laboratory investigations and to train a Malian counterpart.

Finally technical assistance is needed for training the Malian sub-professional staff in the operation, maintenance and repair of the heavy equipment that serves the facility (stand-by generator, etc) and the more specialized scientific equipment.^x This is presently being carried out by a mechanical engineer provided under contract by the ORT organization who is also training the head of the maintenance staff. This contract is due to expire in FY 1975 and should be renewed for an additional two years to assure that CVL can draw on its own capabilities to the maximum extent in keeping its equipment on line.

^xCVL already has a fairly competent crew of laboratory technicians who were trained on the job during the years a smaller laboratory functioned in downtown Bamako.

2) Commodities

CVL's commodity requirements fall into two categories. The first represents urgent needs which should put the CVL in a better position to meet the demand for vaccine for the current 1973-74 vaccination campaign. This campaign is a particularly important aspect of the drought recovery effort. The second category represents longer term requirements such as equipment for the research program as well as spares and supplies for the laboratory.

During the Fei Mission's visit to Mali, October 9-14, discussions were held looking to the inclusion of the requirements in the first category as one of the "short term" projects which would be recommended for Mali by the Fei Mission. This would permit action on the more immediate requirement and gain time for a more thorough review of the project as proposed in State 193979 of September 28. CVL's immediate requirements appeared to meet the Fei Mission's criteria for "short term" projects^x and they are directly related to drought recovery.

The immediate needs consist of the following:^{xxx}

(a) A freeze drying machine with related equipment and supplies to increase CVL's rate of production of CBPP vaccine, (b) local procurement of an emergency back up pump (for the back up water supply) and animals for diagnostic testing and serum production related to the current vaccination campaign,^{xxx} (c) low temperature storage equipment

^x i.e. projects that could be initiated within 60-90 days and would generate benefits in one year or to two years.

^{xx} See also Table III.

^{xxx} Items (a) and (b) are particularly urgent and are additive to estimated FY '74 commodity requirements in the draft PROP.

for stock piling seed materials for virus vaccines after freeze drying, (e) vehicles and spare parts for the CVL and expatriate staff, (f) spare parts and imported supplies for laboratory equipment and basic equipment. As indicated earlier, immediate procurement of these items would help to assure the capability of the CVL to meet the Livestock Services's requirements for vaccines for the current campaign. It is therefore recommended that a procurement specialist be sent immediately to Bamako to prepare the purchasing documents and help inventory spare part requirements on existing equipment. He would then return to the U.S. to expedite the procurement and shipment of the items involved.

The second category of commodity requirements, which would be funded from regular project funds, involves equipment for the nutrition and parasitology research, air conditioners for the supporting small animal units, (FY '74) and follow on spare parts, supplies and vehicles for the period FY '75-78.

3) Training

The CVL is fortunate in that there are several highly competent Malians already occupying key positions at the laboratory, including the Director, the technician in charge of the production laboratory and an Entomologist, and a reasonably competent parasitologist who would benefit from an experienced expatriate. In addition, there are a number of Malians presently being trained in Europe in specialties relevant to CVL's needs but information is lacking as to which specific fields, when they will return and whether they would be prepared to work at CVL.

These circumstances argue for a fairly limited and flexible approach to programming training requirements and funding. Short term refresher training should be provided and academic training for one year should be included to upgrade

existing staff members or those recruited to fill new positions. Training should be programmed so as to strengthen the capabilities of the Malians who will be working with the expatriate advisers and should include Immunology, microbiology and biochemistry. The proposed budget allows for a short term and a one year training program during each year.

4) Other Costs

The "Other Cost" category includes two components. One is for the salaries of local secretarial and administrative staff to service the expatriate staff. The second involves local currency to finance a part of the local operating costs of the CVL including such items as power, generator fuel, gasoline and local costs of repairs, materials and small equipment items.

The local cost expenditures of the CVL in 1972 were estimated at about \$175,000 including some \$60,000 for personnel. However, for reasons mentioned earlier, the CVL was not operational for stretches during that year and costs can be expected to increase as the facility becomes more fully utilized. Costs in the range of \$225,000 - \$250,000 per year appears to be reasonably accurate estimate for the next few years.

It is very questionable as to whether the GOM will be able to finance costs in this magnitude, considering the overall budget outlook of the country as discussed above^x, and con-

^xSee pp. 11-13.

sidering the limited allocations the GOM traditionally makes for livestock services.^x In 1972, the GOM had difficulty in allocating sufficient funds to the CVL to finance even that year's reduced level of operations. This year, thanks to the \$300,000 in special assistance made available by the FED, the CVL is in a relatively favorable financial situation, at least until March, 1974. Additional help from FAO/OSRO, if forthcoming as proposed by the Ougadougou office, would provide additional local support for 1974.

However, there is little assurance that such special support from other donors, made in response to the recent drought crisis, will be forthcoming indefinitely into the future. Rather, it seems sensible for AID to build into its budget projections, some local cost funding for the CVL. The strategy proposed is that AID would partially finance the local costs of CVL operations and urge other donors, particularly the FED and FAC, to help finance the local costs of the field operations of the Livestock Service. Such action would help to assure that the vaccines, diagnostic and research services made available by the CVL would actually be delivered to the animal population and thus benefit the herders and farmers.

Accordingly, the Other Cost category includes \$100,000 for FY 1975 for local cost expenses, with slightly diminishing

^xOn the other hand, CVL appears to have a favored status among the livestock services, perhaps because of its high visibility, perhaps because of the apparently high level contacts of the CVL Director. This may make the CVL's problem somewhat less acute than would otherwise be the case. The GOM has reportedly increased its support of the CVL in 1973 over what it provided in 1972.

amounts for subsequent fiscal years. It is suggested that this fund be administered jointly by the Project Manager and the Director of the CVL to offset shortfalls in GOM financing. Such assistance will undoubtedly be needed over the period projected in the PROP and amounts to recognition of the special costs of operating in one of the poorest countries of Africa.

However, as noted earlier, the Mali livestock sector is facing a period of favorable development due to rising demand and prices. It should be able to support a higher level of public expenditures provided it receives more public services than is presently the case. Changes in GOM policies in the fields of taxation appear to be called for if the agencies involved in serving the livestock sector are to be more adequately funded. But first there is a need to undertake the public finance and tax studies which could lay out the policy options available to the GOM. Thus it is suggested that AFR consider discussing with the GOM and other donors -- particularly FAC, the FED and the IMF^x -- the need for such studies and be prepared to assist in providing some of the talent.

x

Although not a donor in the usual sense, the IMF maintains a resident representative in Mali who serves as an adviser to the Minister of Finance.

Table I

CVL - ESTIMATED COSTS (in \$000)

	<u>FY 74</u>	<u>FY 75</u>	<u>FY 76</u>	<u>FY 77</u>	<u>FY 78</u>
<u>A.I.F.</u>					
Technical Assistance	330	330	360	120	120
Commodities	265 ^e	34	35	31	24
Training	12	12	12	12	12
Other Costs	<u>11</u>	<u>111</u>	<u>101</u>	<u>91</u>	<u>81</u>
TOTAL	618 ^e	487	508	254	237
<u>Other Donors</u>					
Technical Assistance ^b	40	80	80	120	120
FED Special Drought Assistance	300 ^c	N/A	N/A	N/A	N/A
FAO/OSRO Assistance for Veterinary Campaign	N/A ^d	N/A	N/A	N/A	N/A
FAC ^e	N/A	N/A	N/A	N/A	N/A

e) of which \$215,000 would be financed by Drought Assistance funds for short term projects for Mali. See TABLE III.

b) See Table II for details

c) part of \$750,000 special drought assistance

d) amount for Mali this year being determined at time of writing

e) FAC is presently contributing \$50,000 - \$75,000/year for veterinary supplies and equipment.

Table II

CVL - TECHNICAL ASSISTANCE (in \$000)^a

<u>AID</u>	<u>FY 74</u>	<u>FY 75</u>	<u>FY 76</u>	<u>FY 77</u>	<u>FY 78</u>
Project Manager-IH (FY 74-78) ^b	30	60	60	60	60
Assistant Project Manager-IH (FY 74-78)	60	60	60	60	60
Repair and Maintenance Training Engineer-ORT Contract (FY 74-76)	--	90	--		
Microbiologist and lab manager-Contract (FY 74-77)	120	--	120	--	
Parasitologist-Contract (FY 74-77)	120	--	120	--	
Biochemist-Contract (FY 75-76)	---	<u>120</u>	<u>--</u>	---	---
TOTAL	330	330	360	120	120

Other Donors

Immunologist-United Nations (on board)	40	40	40		
Entomologist-United Kingdom (proposed)		40	40	40	40
Epidemiologist-UK or UN (tentative)				40	40
Pathologist-UK or UN (tentative)	---	---	---	<u>40</u>	<u>40</u>
TOTAL	40	80	80	120	120

a) Unit cost figures are derived from August 15 draft PROP

b) could also manage Mali Livestock Project at such time it is initiated.

TABLE III

CVL - URGENT COMMODITY REQUIREMENTS a/
(in \$000)

Freeze drier and related equipment and supplies <u>b/</u>	41
Local procurement <u>b/</u> and pump	14
Refrigeration equipment <u>c/</u>	10
Cyrogenic generator and storage unit <u>d/</u>	56
Spare parts for laboratory equipment <u>e/</u>	10
Maintenance Tools <u>e/</u>	5
Vehicles and spare parts <u>e/</u>	20
Imported Chemicals and Supplies	15
	<hr/>
Transportation Cost on Imported Items	171
	39
	<hr/>
	TOTAL
	210
Procurement Specialist	5
	<hr/>
	TOTAL
	215

- a/ Items included in this Table are recommended for immediate financing with Special Drought Assistance funds.
- b/ Required to supplement existing freeze drying equipment to increase rate of production of CBPP vaccine for current campaign year.
- c/ For walk-in ultra low temperature storage room for virus vaccines after lyophilization
- d/ Ultra low temperature storage equipment for stockpiling seed materials for virus vaccines, rinderpest vaccines and research materials. A preventive maintenance overhaul and a second storage unit would be required in FY 1976.
- e/ FY 1974 funding would finance requirements for the next 12-24 months for across-the-board protection. Subsequent year funding would provide for supplemental spares and materials.

Table IV

CVL - COMMODITIES (in \$000)

Item	FY 74	FY 75	FY 76	FY 77	FY 78
Freeze drier and related equipment and supplies		1	1	1	1
Refrigeration equipment <u>a/</u>		1	1	1	1
Cryogenic generator and storage unit <u>b/</u>		1	9	1	1
Spare parts for lab equipment <u>c/</u>		2	2	2	2
Maintenance tools <u>c/</u>		1	1	1	1
Vehicles and spare parts <u>c/</u>		10	2	8	2
Imported Chemicals and supplies <u>c/</u>		5	5	5	5
Nutritional research equipment and supplies	25	5	5	5	5
Parasitology research equipment and supplies	10	1	1	1	1
Air conditioners	<u>5</u>	<u>--</u>	<u>1</u>	<u>--</u>	<u>1</u>
TOTAL	40	27	28	25	20
Transportation cost on imported items (25%)	<u>10</u>	<u>7</u>	<u>7</u>	<u>6</u>	<u>4</u>
TOTAL	50	34	35	31	24

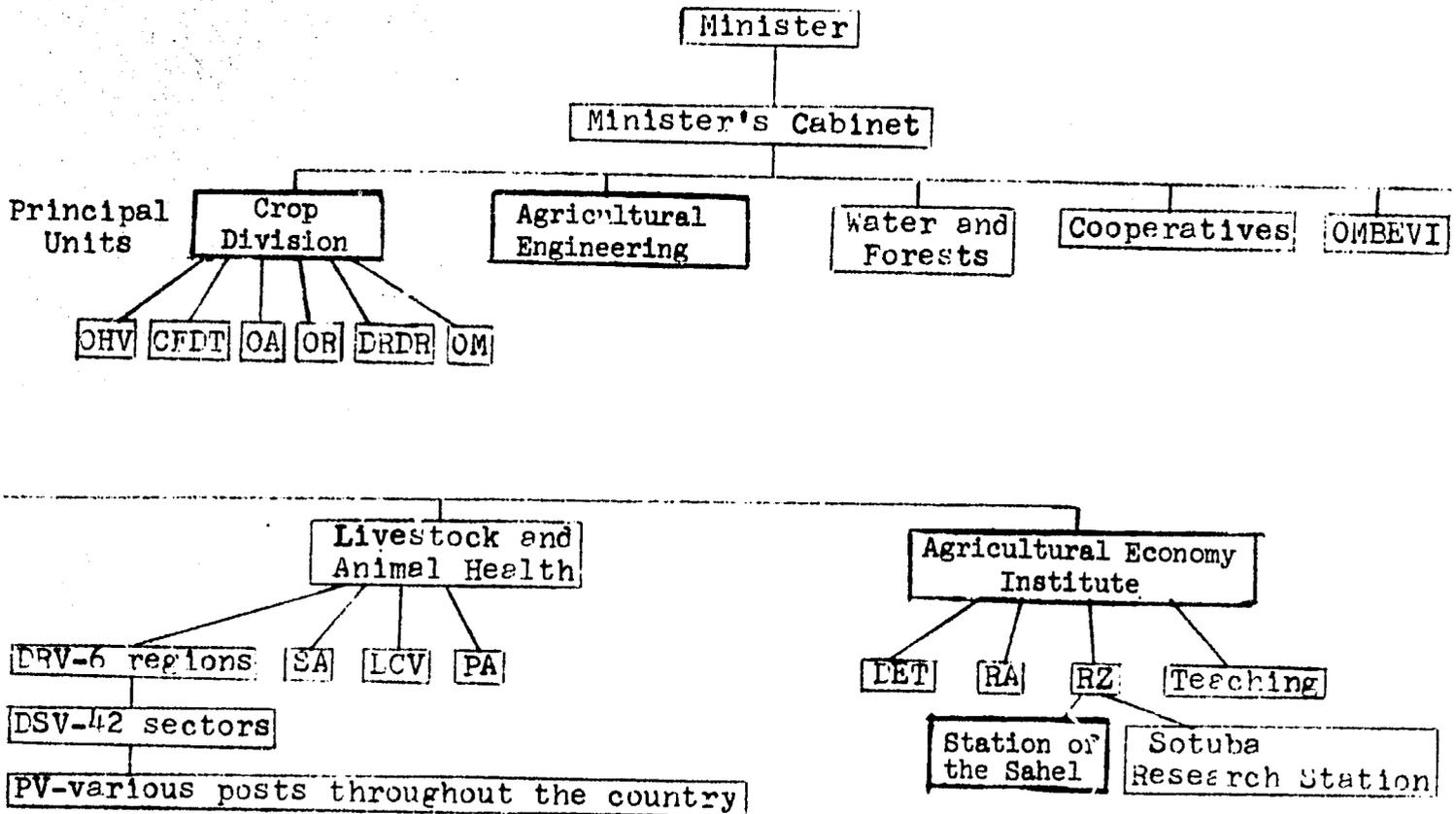
- a) For work in ultra low temperature storage room for virus vaccines after lyophilization
- b) Ultra low temperature storage equipment for stockpiling seed materials for virus vaccines, rinderpest vaccines, and research materials. A preventive maintenance overhaul and a second storage unit would be required in FY 1976.
- c) Funding for supplemental spares, materials, replacement vehicles.

Table v

CVL - TRAINING AND OTHER COSTS (in \$000)

	<u>FY 74</u>	<u>FY 75</u>	<u>FY 76</u>	<u>FY 77</u>	<u>FY 78</u>
Training					
Academic	8	8	8	8	8
Short Term	<u>4</u>	<u>4</u>	<u>4</u>	<u>4</u>	<u>4</u>
TOTAL	12	12	12	12	12
Other Costs					
Local Staff	11	11	11	11	11
Local Operating Funds	<u>--</u>	<u>100</u>	<u>90</u>	<u>80</u>	<u>70</u>
TOTAL	11	111	101	91	81

MINISTRY OF PRODUCTION



- OHV.....Upper Valley Operation (Tobacco)
- CFDT.....French Company for Textile Development
- OA.....Operation Peanut
- OR.....Operation Rice
- DRDR.....Regional Rural Development
- OM.....Operation Millet (AID assisted)
- DRV.....Regional Veterinary Service
- DSV.....Sectoral Veterinary Service
- PV.....Veterinary Post
- SA.....Animal Health
- LCV.....Central Veterinary Laboratory
- PA.....Animal Production
- OMBEVI....Malian Office for Cattle and Meat
- DET.....Division of Technical Studies
- RA.....Agronomic Research
- RZ.....Research in Animal Husbandry

Annex B

Veterinary Production and Research Facilities in West Africa:

A "Regional Role" for the CVL?

A hasty and admittedly incomplete review of veterinary facilities in West Africa shows that there is considerable duplication of facilities and excess production capacity as a result of individual countries establishing national vaccine production laboratories in spite of the prior establishment of facilities which could (and can) serve regional requirements.

The major facility for Francophone West Africa, constructed in the mid-1950's by IEMVPT, the French tropical veterinary organization, is located at Hanh, near Dakar. It was designed to serve the needs of colonial French West Africa and is capable of manufacturing vaccines in sufficient quantities to meet the requirements of most, if not all, of the countries that are now located in that area. Indeed, at the present time, it is continuing to at least partially fulfill such a role. The latest annual report (1972) of the Hanh laboratory shows that over the period 1969-72, exports of vaccines to other African countries averaged 70% of total production, and indeed had risen to 75% by 1972.^x Total production in that year amounted to about 14 million doses yet this represented only 50-65% of the plant's productive capacity, according to its staff.

^xIn 1972 the Hanh laboratory sent vaccines to the following countries in addition to Senegal: Mauritania, Niger, Upper Volta, Ivory Coast, Guinea, Dahomey, Togo, Liberia, Mali, Gambia and Zambia.

Whether, however, the recent trend toward increased production for other African countries will continue is very much open to question. A number of the countries presently importing vaccines from Senegal (e.g. Mali, Ivory Coast) are in the process of establishing their own production facilities. Similarly a local laboratory in Niamey already meets most of Niger's requirements.

Only Mauritania and Upper Volta among the six Francophone Sahelian countries are without local production facilities, and import most, if not all, of their veterinary vaccines from the Hanh laboratory. However, Upper Volta is reportedly planning to construct a facility of its own.

The Anglophone West African countries appear to be making much more rational use of their veterinary vaccine facilities. The major production laboratory is located at Vom near Jos, Nigeria. In addition to supplying Nigeria's requirements, it also provides vaccines for Ghana and Sierra Leone. Gambia buys its vaccines from the Hanh laboratory.

The IEMVPT laboratories in Francophone Africa^x enjoy strong local and external support. Under an agreement with France, costs of support for the facility, including the research programs, are shared equally between FAC and the host government.^{xx} In addition, revenues are earned on the sale of vaccines which

^x A second major production laboratory is located at Farcha near Fort Lamy in Tchad and was established before independence to serve Central and Equatorial Francophone Africa.

^{xx} However the Acting Director of the Hanh laboratory indicated that the FAC share would be greater than 50% in the future.

partially cover costs of production. For example, in 1972 the operating budget of the Hanh laboratory amounted to approximately \$1 million of which some \$800,000 was shared between the two governments and the remainder financed by sales on production. This is in addition to capital expenditures financed by FAC and other sources. The vaccines at Iakar Hanh are reportedly sold at substantially below cost. Prices have been kept constant for a number of years in the face of rising costs. Thus a portion of the French and Senegalese subsidies to the laboratory are, in effect, passed on to the consuming countries.

An extensive livestock and veterinary research network, centered on IEMVPT in Paris and extending to research laboratories in Senegal, Tchad, Madagascar, the Central African Republic, the Ivory Coast and Ethiopia has been in existence for many years. Research activities range across all of the veterinary and livestock disciplines -- microbiology, entomology, biochemistry, nutrition, agrastology, and others. There is some specialization among the research programs of the various laboratories, the one in C.A.R., for example, concentrating especially on trypanosomiasis, but research programs are increasingly emphasizing local priorities as the Africanization of the staff proceeds and as African governments exercise growing influence on program direction.

Given the foregoing situation, the prospects for the CVI to assume a "regional role" in the sense of supplying the veterinary vaccine needs of neighboring African countries are distinctly unpromising. That regional role is already being

served by the IEMVPT labs. The established position of those laboratories with respect to reputation, cost, quality and dependability of service and the superiority of Dakar over Bamako from the standpoint of transportation and delivery, makes it unlikely that the consuming countries would wish to shift to a new and probably more expensive source of supply. In addition, as noted above, the regional "market" for vaccines appears to be contracting as countries proceed to establish their own facilities. Thus, assuming that the CVL is successful in establishing its production program on a sound and dependable footing, it appears most unlikely that there will be a regional demand for its vaccines, at least on non-political grounds.

The situation is more promising in the field of research, once the CVL's more immediate research needs in support of the vaccine production program have been satisfied. Here the CVL can eventually play a "regional role" in the sense of becoming a functioning participant in the Francophone veterinary research network, and, secondly, serving as an outreach facility for the International Livestock Center for Africa which is being established in Addis Ababa. In regard to the former, the CVL would undoubtedly benefit from a closer relationship to the research program in Senegal and it is possible that the OMVS might serve as a vehicle for facilitating closer ties. The ILCA connection should also be of great potential benefit to CVL as well as providing ILCA with an additional outreach capability. The timing appears to be fortunate in ^{that} the ILCA will probably not

be fully operational for two or three years, by which time the
CVL will be in a better position to collaborate.

DESCRIPTION OF THE CVL

The C.V.L. is composed of three main buildings:

- Building A: Administration and Research
- Building B: Vaccine Production
- Building C: Technical and Maintenance Services

- Building A

It includes the General Administration for the CVL and the research units. It is composed of the following elements:

- 2 director's offices
- 1 library--conference room
- 2 secretarial corridors

In the technical part:

- 4 laboratory units with sterile isolation cabinets
- 2 laboratory units without sterile cabinets
- 1 large biochemistry room with sterile cabinet
- 1 cleaning room
- 1 cold room
- 1 incubator (37 C)
- 1 large washing up and sterilization room
- 1 large autopsy room

Behind this technical compartment is an area open to the sky enclosed by 8 isolation units for large animals.

On the roof of Building A, a shelter contains technical equipment for central air-conditioning, vacuum pump, and demineralization apparatus.

- Building B

It was planned for vaccine preparation and includes:

- 1 Administrative section with 2 offices
- 1 storage room for stocks
- 1 conditioning room with a cold chamber
- 1 gas storage room

The technical part is composed of 4 sections:

- 1 anaerobic section
- 1 aerobic section
- 1 virus and lyophilization section
- 1 cell culture section

These four sections communicate with a large central washing and sterilizing room which has 3 autoclaves and 1 cold chamber.

Building B also has a shelter with equipment for central air-conditioning, demineralization, distillation, compressed air, and vacuum pump.

- Building C

This is the building where water and electricity consumption is regulated. It includes:

- 1 machine room (electric generator, water pump, tension regulator, boiler)
- 1 transformer post
- 1 incinerator
- 1 room for small laboratory animals
- 1 refrigerated workshop
- 2 storage rooms
- 1 workshop for automobile mechanics



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12
ORIGIN AID-25

INFO OCT-01 AF-05 EB-05 IGA-02 /038 R

DRAFTED BY AFR/CWR:UCYLKE
APPROVED BY AFR/CWR:FJSPENCER
AFR/DS:PLYMAN(SUBS)
AFR/DS:BJOHNSON(SUBS)
AFR/CWR:AVESTRICH(SUBS)
AFR/CWR:LCLYBURN(SUBS)

DESIRED DISTRIBUTION

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INFO AMEMBASSY BAMAKO

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AIDAC

E.O. 11652: N/A

SUBJ: FY 1974 PROJECT STATUS REPORT FOR REGIONAL LIVE-
STOCK RESEARCH LABORATORY - 610

1. AFR/CWR REVIEW DRAFT PROP COMPLETED AND COMMENTS FOLLOW. BELIEVE IT ESSENTIAL REDSO ASSIGN DESIGN OFFICER (PERHAPS PIELEMEIER IN ASSOCIATION WITH MALI LIVESTOCK DESIGN EXPERTISE) TO PROJECT IMMEDIATELY TO FOLLOW-UP WITH ADD DAKAR. REQUEST ABIDJAN ADVISE. BELIEVE NARRATIVE PROPOSAL SHOULD BE SUBMITTED NOT LATER THAN OCTOBER 31, 1973.

2. PRIOR COMPLETION LOG FRAME, REQUEST DESIGN TEAM SUBMIT NARRATIVE PROJECT PROPOSAL AND ISSUES PAPER FOR AID/W REVIEW. SUGGEST FOLLOWUP TO BE COMPLETED BY OCTOBER 31, 1973.

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(A) DETAILED TECHNICAL DESCRIPTION CENTRAL VETERINARY LABORATORY FACILITY AND OPERATION INCLUDING CLEARCUT DEFINITION LABORATORY PURPOSE; CURRENT AND PLANNED ACTIVITIES; CURRENT AND PLANNED STAFF REQUIREMENTS; CURRENT AND PLANNED FINANCIAL REQUIREMENTS.

(B) TO THE EXTENT LABORATORY IS VACCINE PRODUCTION ORIENTED OR ENGAGED AND AID SUPPORT IS SOUGHT FOR VACCINE PRODUCTION ACTIVITIES, SOME ANALYSIS OF NATIONAL AND/OR REGIONAL PRODUCTION REQUIREMENTS/TARGETS, ECONOMICS, MARKETING AND DISTRIBUTION SHOULD BE ADDRESSED. OBVIOUSLY ALTERNATIVE SOURCES AND COMPETING PRODUCTION UNITS ALSO BE ADDRESSED.

(C) TO THE EXTENT AID SUPPORT IS SOUGHT FOR VACCINE PRODUCTION, DEFINITION OF THE LINKAGES BETWEEN THAT ACTIVITY AND LIVESTOCK PRODUCTION ACTIVITIES CURRENTLY UNDERWAY OR CONTEMPLATED BY THE GOM ON ITS OWN ACCOUNT, WITH AID OR OTHER DONORS WILL BE REQUIRED.

(D) TO THE EXTENT LABORATORY IS RESEARCH ORIENTED OR ENGAGED AND AID SUPPORT IS SOUGHT FOR RESEARCH ACTIVITIES, BUREAU POSITION RESEARCH QUANTITATIVE RESEARCH MUST BE CONSIDERED AND PRIORITY SUCH ACTIVITY AS AGAINST OTHER BUREAU CLAIMS ASSESSED. SPECIFICALLY DEFINITION OF LINKAGES BETWEEN CVL RESEARCH AND ILCA AND OTHER DONORS ACTIVITIES IN RESEARCH WILL BE REQUIRED.

(E) TO THE EXTENT AID SUPPORT IS SOUGHT FOR APPLIED RESEARCH, LABORATORY OUTREACH CAPABILITY AND/OR LINKAGES TO OTHER GOVERNMENT EXTENSION ACTIVITIES, AND RELATIONSHIPS BETWEEN RESEARCH TARGETS AND LIVESTOCK PRODUCTION PROJECTS CURRENTLY UNDERWAY OR CONTEMPLATED IN MALI SHOULD BE ADDRESSED.

(F) BELIEVE DESIGN TEAM MIGHT EXAMINE POSSIBILITIES LABORATORY ROLE TESTING ANIMAL HEALTH DELIVERY SYSTEMS AND LINKAGES PROPOSED MALI LIVESTOCK THIS REGARD.

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(G) BELIEVE DESIGN TEAM MIGHT ALSO EXAMINE POSSIBILITIES LABORATORY ROLE AS REGIONAL CENTER VETERINARY TRAINING.

(H) THE REGIONAL SCOPE OF THE LABORATORY MUST BE CAREFULLY EXAMINED GIVEN BOTH THE SIZE OF THE FACILITY AND ITS IMPLICATIONS FOR ILCA; AND

(I) OTHER DONOR INPUTS SHOULD BE DISCUSSED.

3. NARRATIVE PROJECT PROPOSAL SHOULD SPECIFICALLY DEFINE AID INPUTS INCLUDING BRIEF DESCRIPTION OF TECHNICIAN RESPONSIBILITIES AND INSTITUTIONAL PLACEMENT, RELATIONSHIP OF COMMODITIES TO PRIOR CAPITAL AND COMMODITY INPUTS, AND DISCUSSION FLEXIBILITY AID ROLE IN ANY PROPOSED ACTIVITY, INCLUDING POTENTIAL ROLE CVL IN SAHEL REHABILITATION.

4. FY 74 BUDGET REQUESTS DOLLARS 555,000 FOR PROJECT INCLUDING DOLLARS 90,000 OH TECHNICIANS, DOLLARS 285,000 CONTRACT TECHNICIANS, DOLLARS 11,000 DIRECT LOCAL HIRE, DOLLARS 12,000 DIRECT PARTICIPANTS, DOLLARS 157,000 DIRECT COMMODITIES. FY 75 BUDGET DOLLARS 220,000 FOR PROJECT INCLUDING DOLLARS 120,000 OH TECHNICIANS, DOLLARS 30,000 CONTRACT TECHNICIANS, DOLLARS 11,000 DIRECT LOCAL EMPLOYEES, DOLLARS 21,000 DIRECT PARTICIPANTS AND DOLLARS 38,000 DIRECT COMMODITIES.

5. ONLY OH PERSONNEL COSTS TO BE FUNDED PRIOR PROP APPROVAL. KISSINGER

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