EVALUATION REPORT

CENTRAL AFRICAN LIVESTOCK PRODUCTION AND MARKETING PROJECT

ASSALE (CHAD)/SERBEWEL (CAMEROON)

November 22, 1975

Country Development Office (CDO)
Agency for International Development (AID)
N'Djamena, Chad

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I. INTRODUCTION

This Evaluation was prepared by a two-member team from the Agency for International Development in Washington, composed of the Evaluation Officer of the Bureau for Africa (AFR/W) and the Livestock Specialist under a personal services contract.

The evaluation work was conducted in the field between November 8 and 22. The team visited project site facilities at Karal in the Assalé sector and Makari in the Serbewel sector, and held discussions with LCBC, FAC, UNDP/FAO and CDO officials and staff in N'Djamena. However, the findings and recommendations in this evaluation report are the responsibility of the evaluation team only.

PAR 76-1 is included in this report as Annex B and also submitted separately to AID/W in accordance with the Agency's management system procedures.

The team expresses its sincere appreciation to LCBC, CDO, government officials of Chad and Cameroon, and project staff and advisors for the very warm hospitality and excellent cooperation extended in the conduct of this evaluation.

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II. Summary of Findings and Major Recommendations

A. Findings

1. The joint multidonor arrangements between AID, UNDP and FAC have worked well during Phase I.

2. The main components of Phase I, infrastructure and institutional building, are well under way and should be completed by 1977.

3. On balance, project implementation has proceeded at an acceptable rate.

4. As intended in the project strategy, animal health and water development were undertaken early, and good progress has been made. Vaccination and parasite control programs have already been sustained at full coverage for two years.

5. Available data indicate a sizeable increase in livestock numbers between 1971 and 1975 as a result of project health measures and favorable rainfall and pasture conditions, highlighting the danger of further resource degradation from overstocking. *

6. Project area enjoyed good calf crops in 1974 and 1975, underscoring the need for a more rapid involvement of producers in protecting the project environment through control of grazing and livestock numbers.

* what are the counter measures required ?

B. Recommendations

1. Remainder of Phase I

a. The increase in total livestock numbers, higher effective calving rate and dwindling surplus of mature sale animals makes imperative a shift in emphasis to those project components which increase offtake and retard resource degradation.

b. High priority should be accorded marketing as a means of optimizing herd offtake.

c. Since the producer associations were chosen as the main project change agents, their organization and the training of appropriate personnel should be expedited.

d. Extension activities should be initiated but concentrated only on the most promising activities. Plans should be readied for upgrading, retraining or recruiting necessary project personnel.

c. Participant training, which has lagged badly because of the lack of candidates, should be restructured in support of project requirements, particularly for degree candidates in range and livestock management.

f. A production model of project cattle should be made, using current estimates of herd composition and production coefficients, and projected over time to arrive at estimates of saleable animals and adjustments dictated by the grazing management plan.

2. Considerations for Phase II Project Design

a. The findings of the Evaluation Team suggest that work should begin as soon as possible on the project design for Phase II.

b. The results of the evaluation indicate the need for a new strategy in Phase II, rather than a mere modification of the integrated livestock approach of Phase I.

c. As a point of reference for the project design team, the strategy should aim at increasing the efficiency of a diversified or mixed livestock and agricultural production in the project area. This strategy derives from a determination that controlled grazing management and high herd offtake, sufficient to reduce overstocking to an acceptable level, probably cannot be effected on a voluntary basis.

d. To reduce total livestock numbers to an acceptable level consistent with a stable resource base would also imply removing a part of the human population, since they rely on cattle for a livelihood, unless their dependence on livestock could be correspondingly reduced by a shift to cropping or other local occupations.

e. A shift in project emphasis to diversified or mixed livestock/agricultural production would neither lessen the need for the initiation and implementation of a broad grazing development plan, nor provide an immediate solution to overstocking.

f. If the proposed approach is accepted, provisions must also be made for the implied land-use surveys, and/or farm plans. However, due to the subsistence and shifting pattern of cropping in the project area, any meaningful farm plan(s) would have to be simple, low cost and easy to apply.

g. Any project paper (PP) for Phase II should include provisions for an evaluation to be conducted jointly by LCBC/UNDP/FAC/AID at a mid-point rather than near the end of scheduled project life.

III - Livestock Sector setting

A. Sector Assessments

The Development Assistance Program (DAP) papers of AID for FY 1975 provide recent information and assessments for this sector.

In Chad, animal husbandry is the principal occupation and source of subsistence income for over half of the rural population and provides directly for 16 per cent of GDP. Recorded and estimated exports of animals, meat, hides and skins amounted to roughly 28 per cent of the value of exports in 1970. Generally, cotton is the most important export, accounting for 78-80 per cent of export earnings in most years.

Chad's livestock industry attained a peak in 1967-68 and has been declining since. The trend of herders leaving Chad for Sudan, Nigeria and CAR has been accentuated by the drought. It is estimated that the national cattle herd has declined from 4.5 to 2.7 million head, or some 40 per cent, only about half of which can be attributed to the drought itself.

In the past it was generally accepted that herders kept many old unproductive animals for reasons of prestige and security. Since 1968, it was noticed that the tradition was changing and younger animals were being sold. The dry years since, together with favorable prices have accelerated the trend resulting in significantly changed herd structure as evidenced by (a) cattle herd observation in the field, observations of sales at established markets and carcass weights of animals slaughtered at Farcha Abattoir. By 1974, this trend toward overselling was so far advanced that many animals were being sold about 2 or 3 years before attaining optimum market weight. In a comparison at one sample sale, for example, males and females 2 to 3 years old constituted 56 per cent of total sales to only 10 per cent for males 4 years or elder.

While external and internal transportation present problems for livestock development, Chad cattle can be marketed on hoof. Because of the long run demand for red meat, particularly in urban centers throughout tropical Africa and the Middle East, meat prices are expected to increase in relation to other agricultural commodities. Thus the expansion of livestock production is expected to become even more economically attractive in Chad in future years.

In Cameroon, there is good potential for livestock development, but production faces difficult problems because of tse-tse infestation and, in many areas such as Serbewel, overgrazing. In the entire country there are about 2.5 million cattle, 3 million sheep and goats, 0.5 million pigs and 8 million poultry. The estimated value of production is about CFA 8 billion ($32 million) or less than 10 per cent of agriculture.

Under Cameroon's Third Plan, a major livestock development project (1974-79) is being implemented, in areas south of the Adamoua escarpement, including the eradication of tse-tse, large ranches, slaughter houses, and numerous private ranches and farms, financed mainly by an IBRD loan of $11 million.

To carry out the national objective of a more even distribution of economic development in the various provinces, the Ministry of Livestock had requested assistance from AID and other donors for the northern portion of the country, not included in the IBRD program. DAP papers, therefore, have focussed on livestock in North Cameroon, the portion of the country lying within the Sudan-Sahel zone that has been most adversely affected by the drought. It is an area with the lowest per capita income and the most difficult development problems.

In terms of the above summary, it seems clear that the Assale-Serbewel project, with its emphasis on increasing livestock production efficiency consistent with resource conservation, addresses priority objectives within the livestock sectors of both Chad and Cameroon.

B. Related Project Activities

Sometime after the DAP studies referred to above, AID undertook the preparation of two projects in the livestock sector at sites in or near the conventional Lake Chad Basin closely related in design and strategy to the Assale-Serbewel Project.

In Chad, a project entitled "Herder Training" is being considered for groups of semi-sedentary livestock herders operating mainly in Kanem Prefecture with a headquarters and training center facilities in Massakory. The purpose of the project is to develop a system of communication with herders which would lead to increased efficiency of livestock production together with improved use of the renewable resource base. The thrust of the project strategy is to develop appropriate methods for involving herders in improved livestock practices along with better animal health measures, water development and appropriate schemes for improved range utilization.

Thus there is a clear similarity with the Assale-Serbewel Project and these projects should reinforce each other. Each should benefit from close contact and consultation between technical and operating personnel of both projects. Coordination should be relatively simple since an AID staff member is project manager for both.

In Cameroon, AID efforts in the livestock sector are currently concentrated in North Cameroon. A baseline survey has been made of land, water, livestock and the economic and social aspects of that area. Using the reports of that baseline survey, a joint AID/FAC

design team is working in the field with two objectives (a) the development of a long-term livestock strategy for North Cameroon and a livestock development program aimed at correcting the limiting constraints in the five basic production phases - breeding, nutrition, husbandry, health and marketing, and (b) recommendations for a possible series of individual project activities which would lead toward achievement of the objectives stated in that development program.

It would appear that several of the activities which might emerge would use an integrated livestock approach similar to that of Assale-Serbewel and, in fact, the preparation of Project Papers could make good use of the Assale-Serbewel experience and the evaluation reports on its progress.

The AID project manager and the Serbewel sector personnel will probably find it useful to follow the development of the long-range livestock program and individual project activities that are initiated in the North Cameroon ecological zones most similar to Serbewel.

The report of the Baseline Survey in North Cameroon may prove useful in the project design stage of Phase II by indicating the extent, if any, to which herder dependence on livestock grazing can be reduced by improved or expanded subsistence agriculture in the project area.

IV. Details of Project Performance

A. PAR 76-1

As stipulated in the frame of reference, a PAR 76-1 (R) has been prepared and included in this evaluation report as Annex B. Copies of this PAR are also being transmitted to AID/W in the normal manner for such documents.

B. Inputs

The individual input agents are reviewed, in detail, in PAR 76-1. Overall the project is well administered. The unusual joint participation by three donor agencies--UNDP, FAC and AID--has worked very well thus far. The three technical advisors are young, energetic, experienced, competent and dedicated which would make difficult their replacement by other experts of similar caliber. LCBC has had an important role in coordinating and guiding project activities and providing logistical support. Cooperating countries have helped develop physical and organizational project infrastructure in each sector.

There have been and continue to be some problems with other inputs. AID commodity deliveries have been slow but such delays could be reduced if commodity lists could be sent directly to AAPC rather than transmitted through AID/W. Recruiting participant candidates has been a persistent problem, and poses pertinent issues at this time. At the outset, 8 participants were programmed with four each in veterinary medicine at B.Sc. level and in range/livestock management at nondegree level. All LCBC member countries would furnish a candidate in each field. Unfortunately, because of greater background and experience, three veterinary and one range/livestock candidates were easily processed and began study at Dakar and Zaria in 1973. Little progress has been in finding other suitable range management candidates, although for the current project design this timing is the more crucial, particularly since trained personnel are so rare. Because of the increasing importance of the range management component, efforts will be made to increase the emphasis on range management training during the remainder of Phase I.

A related problem concerns the two counterpart Section Chiefs. Nondegree training was deemed appropriate for these personnel in operational type positions at small field stations. This makes for a wide disparity in background and outlook between advisor and counterpart. On the other hand, it is not likely that degree graduates would be suited for this type of village life or employment. A satisfactory solution is not obvious but this issue will be dealt with further in the project design for Phase II.

C. Outputs

At inception, this unique multidonor and regional project was designed within the framework of the integrated livestock and marketing approach and was based upon several comprehensive feasibility and related studies and projected progress of both AID and UNDP containing detailed work plans. In fact, the UNDP project document included detailed work plans for both the preparatory and operational phases of the first 5-year project period, 1972-1977, with a scheduled sequence of numerous individual action steps predicated upon an elaborate networking system.

These project documents and work plans set forth the five basic elements of the integrated livestock approach viz. breeding, health, husbandry (or management), nutrition (including water development and range management) and marketing, as well as other crucial elements or components under this project approach such as establishment of producers' associations, extension and training, diversified livestock farming, etc.

At this vantage point, the original project work plans appear to have been slightly overambitious, notwithstanding the competence and dedication of the technical advisors, the project director and good local support from LCBC and the national services, that is in terms of the time allotted, the number of experts and operating personnel, logistical difficulties in this remote setting and the expanding duties of the technical advisor on livestock sector matters for LCBC.

As seen in the annexed PAR, on certain key components of the project design and strategy, i.e., animal health and water development, very good progress is already recorded. Many of the planned cemented wells and one artesian well are in operation, with physical and organizational infrastructure in place. The vaccination and parasite control programs have already been sustained at full coverage in both sectors for two years. There is ample evidence that for a combination of fortuitous reasons, these health measures as well as plentiful rainfall and pasture, the effective calving rate has reached about 55 per cent in the past two years, a sharp increase from the estimated average of about 40 per cent at project inception. As intended, these developments have thus bolstered herder interest and confidence in project staff and operations appear to enhance projects for success in the other more complex project undertakings. There are also indications of a steadily declining trend in the average age, size and weight of animals being slaughtered together with evidence of few remaining surplus animals among the grazing herds. This result now makes critical the need for a better balance in project operations and an acceleration of other planned project outputs such as range management and marketing in order to increase offtake of expanding livestock numbers and retard continued overstocking and, as a minimum, further degradation of the natural resource base.

The importance of greater emphasis on better range and livestock management was further accentuated by the decision to install two artesian wells in Serbewel. During discussions and negotiations, it was concluded that project work plans on these components were simple and conventional but not adequate to cope with the strong pressures contributing to overstocking. A broad range management and development plan is now under preparation which is likely to modify significantly the plans, operations and participant training schedules of Phase I and change staff, personnel and other input requirements for the proposed new project design of Phase II, as discussed in greater detail in Parts V and VI of this evaluation report.

The slower project efforts in organizing producers' associations and extension or training activities is understandable as project staff proceeded carefully and deliberately to tie the pace of these activities to favorable situations and herder attitude and receptivity,

taking into guidance the socio-economic baseline study completed earlier. An acceleration during FY 1976 and FY 1977 is anticipated in current work plans but there is growing realization that staff, personnel and training may be insufficient and work schedules may be modified accordingly, with such implications being taken into careful account in the project design for Phase II.

As seen in PAR 76-1, a number of actions in breeding, nutrition and husbandry either have/withheld pending greater promise of herder receptivity or have been tried and tested, some with negative results. Castration is not considered particularly desirable at this stage. Legume hay has been stored and will be tested but pit silage has not been attempted. Tests of protein supplements will be made. But from the experience of earlier drought relief distribution, this is not now considered economic in terms of relative prices of feed to cattle. Ox cultivation which has worked well in cotton areas of Chad and Cameroon is not considered practical for dry land subsistence farming in the project areas.

V. Review of Phase I Design and Operations

A. Project Resumé

The project area lies along the southern shore of Lake Chad on either side of the frontier between Cameroon (Serbewel) and Chad (Assale) with the two sectors separated by the Chari River. As regards infrastructure and administration at project inception, the Serbewel sector held a favorable position over Assale. From an organizational standpoint respecting project formulation, both sectors may be considered as starting from base zero.

The project goal is to improve livestock production efficiency in the Assale/Serbewel but with the understanding that it could serve as a prototype or model for the Lake Chad Basin and/or sub-Sahara Africa in general. The primary thrust is directed at traditional livestock producers in which, on a phased basis, packages of production practices would be introduced through producer associations. Donor support is multiple (UNDP, FAC and AID) and the project is regional in scope as it overlaps Chad and Cameroon. It was envisaged that under strong expatriate guidance and training, the First Five-Year Phase of the project (1972-1977) would result in the establishment of an infrastructure/organizational base permitting African take-over of most activities in the Second Five-Year operational or production phase.

B. Results to Date (1972-1975)

Institution building and infrastructure establishment are well under way with expectations of completion by 1977. The formation and education of producer associations through which production practices would be channeled, have lagged although it would appear that earlier projections were too optimistic. While there have been no serious problems in getting producer acceptance of disease control measures and they seem favorably disposed to association formation and certain other new proposals, the general consensus is that it is still too early to press for herd reductions and controlled grazing management. A review of livestock statistics in Serbewel since 1971 reveal that cattle, sheep and goat numbers have increased by 14.4 per cent, 68.9 per cent and 80.8 per cent, respectively (see Annex C). Even after conceding that a measure of this increase resulted from improved producer rapport and better enumeration methods, one must conclude that the dangers of further resource base degradation are exigent. It is also noteworthy that project area enjoyed good calf crops in both 1974 and 1975, which when coupled with disease control measures emphasize the need for a more rapid involvement of producers in safeguarding project environment. In particular it is important to undertake speeding up and expanding participant training in range management and livestock production. On balance, progress to date toward project objectives is considered fully acceptable, and attained through understanding, compromise, cooperation and dedication on the part of all concerned, but especially due commendation are the project sector chiefs.

C. Major Lessons Learned

While the project's Phase I Plan was comprehensive or integrated in the sense that all basic aspects of production, both animal and natural resource, were included and strong emphasis placed on the human component, it is doubtful that there was sufficient appreciation of the complexities and difficulties in changing traditional producer societies to the point of assuming responsibility as stewards of the natural resource base for future generations. In fact it is not clear that project inhabitants have firm government commitments for exclusive and perpetual use of the lands they presently occupy. In the absence of reasonable assurances in this connection, it is questionable whether traditional producers can ever be convinced of the logic of land resource base conservation.

Other observations follow below:

a. Project strength can be gained from combined multidonor financial and technical support, especially where such inputs are complimentary.

b. Traditional producers are receptive to new technology that yields immediate benefits, but are much less receptive to innovations requiring change and effort on their part with only a promise of future returns.

c. Technological inputs should be carefully phased, limited to highly relevant issues and closely monitored, else the end result may be counterproductive (e.g., the need to plan for high offtake in project area when the 1974-1975 calf crops reach market/breeding age, and the overriding issue of a grazing management plan that includes water development).

d. Success in increasing productive efficiency in the traditional sector requires time and patience, and can only be undertaken with calculated risk.

e. Time is of the essence in attempting to stabilize livestock numbers and the land resource base in project area.

D. Implications and Suggestions for the Remainder of Phase I (1976-1977)

Since subject project contains a vast number of complex entities, close monitoring of operations is essential. The chief purpose being to correct any shortcomings or oversights in the original design and make needed adjustments dictated by time and/or changing conditions. This is of course additional to assessing and measuring change resulting directly from project implementation.

Although the following four points are important to the remainder of Phase I and needful of concentrated effort, though not necessarily possible of accomplishment within the remaining time span, they would have relevancy in the event of project continuation to Phase II. It is also noteworthy that all of these issues are treated in greater or lesser detail in Phase I.

1. Participant Training

The original participant training list included four Bachelor of Veterinary Science degrees (one for each LCBC country) and four nondegree trainees divided between range management and general agriculture. This would seem to provide for only one range management technician and one general agriculturist in each of the two project sectors, all at the subprofessional level. When taking into account the long history of veterinary science in the Chad Basin and newness of the range management concept to the area, there is need to redress this imbalance with the greatest possible despatch. This is important to the remainder of Phase I, but of even greater significance in the case of project extension to Phase II. To date only one range management/livestock participant training candidate has been in training.

2. Organization of Producer Associations and Grazing Management

The focus for introducing new technology, key to compliance and control, is the formation and development of producer associations. In the Serbewel sector at least, the foundation has been laid for five such close-knit groups. It is expected that they will be organized in sequential order by October 1977, with association leadership given training in Yaoundé. To the extent possible, grazing management blocks should be designed to approximate the area occupied by a given association membership.

3. Extension Activities

A close look at planned Phase I livestock extension activities, which were to be chiefly channeled through producer associations, suggests the need for an early review by the technical advisors and project staff. Hindsight reveals that certain activities, such as ox-cultivation, pit silos, and the feeding of protein supplements, have little relevancy to project livestock producers. Present project staff are harnessed with a full load that hardly leaves time for even relevant extension activities. Thus not only is there need to weed out unpromising activities, but careful thought should be given to upgrading and/or expanding staff who will carry out extension work with the producers.

4. Accelerated and Sustained High Herd Offtake through Marketing

Protecting the environment against further degradation of the land resource base, due to excessive livestock numbers, is of great significance for the remainder of Phase I and must be highlighted in

Phase II. The desired balance between land capability and livestock numbers can in theory be attained by either forceful removal of excess livestock or strict adherence to a controlled grazing management system. Since voluntary control through education and persuasion of the producers seems to be the only course of action acceptable in project area, the marketing phase of production must be given high priority, both in the remainder of Phase I and in Phase II.

E. Implications and Suggestions for Phase II

The above review of Phase I clearly suggests progress in infrastructure and institution building with little intended or realized impact on production within the first five years of project implementation. By 1977 the organizational base should be reasonably complete, except some technical expertise among project personnel.

Thus, it would logically follow that Phase II should be largely operational and directed at assisting producers to assume stewardship for project area.

However, when taking into account the AID consultant's proposed grazing management plan, in which drastic reductions in livestock numbers will be required for success in stabilizing the land resource base, and after noting that present overstocking results more from the large number of aggregate herds rather than appreciable surpluses within individual herds, it then appears that controlled grazing and necessary herd reductions can be induced on a voluntary basis only within narrow limits.

Further analysis suggests that the root cause of land degradation in project area stems from too many people relying on cattle for a livelihood with the immediate result being evident overstocking. Therefore careful thought must be given to cause and effect when considering Phase II. At best it would seem that part of the thrust would need to be directed at assisting and encouraging project inhabitants to get more of their livelihood directly from farming, albeit in full recognition of the limited agricultural potential of project area. Certainly this would be required in addressing the matter of equity among project residents.

The mixed farming approach suggested in the project area should not be construed as applicable to other more arid areas of the Sahelo-Sudan zone, although it should have relevancy in many of the medium rainfall climes of the four Chad Basin countries.

VI . Strategy for Project Design of Phase II

A. Diversified Livestock/Agriculture Production Approach

The general strategy and objective underlying Phase I focused on the production of meat (beef) with livestock presumed to be the most beneficial use of project land. Improved livestock production efficiency was to be attained by the application of new technology and adherence to grazing management with livestock numbers controlled on a voluntary basis by the producers themselves, through organization, education and persuasion from project personnel.

A prerequisite to success in protecting the land resource base through grazing management is an acute reduction in and the stabilization of livestock numbers. Since present overstocking results chiefly from the aggregate number of many small herds, with only limited room for accelerated offtake from within individual holdings, it is unlikely that producers would or could meet destocking requirements.

The foregoing manifests the exigency for a fresh look at project area, including the land and people, on an "as is where is" basis. That is, instead of focusing primarily on livestock production efficiency, the need now would appear to be consideration of:

- Most beneficial use of land in project area.
- Equity of benefits among inhabitants.
- Absolute need for reduced dependence by humans on livestock for basic sustenance, mainly milk.

There is evidence that cropping is steadily growing in the project areas; it is therefore proposed to intensify that trend and at the same time improving the productivity of such mixed farming activities. This course of action suggests the need for a major shift in the approach to development of project area, but it does not follow that on-site accomplishments to date respecting infrastructure and organization require material modification. The main difference would emerge from technical staff requirements, composition of associations and broader extension activities. Certainly major components would still need to be grazing management and increased livestock production efficiency.

The broad strategy herein envisaged would entail certain additional farm land use surveys, the guidelines for which hopefully would be indicated in the consultant's final grazing management development plan. However, due to the subsistence and shifting pattern of cropping in project area, any meaningful farm plan(s) would have to be simple, low cost, and easy to apply.

B. Logical Framework - Goal

Under the suggested approach the program or sector goal statements would be the following:

1. Program or Sector Goal:

To increase the living standards of the human population in project area, consistent with equitable benefit distribution, resulting from a diversified or mixed livestock/agricultural production.

2. Important Assumptions

a. Diversified or mixed farming represents most beneficial use of project land resource base.

b. Benefits will be potentially available to all strata of project population.

c. Mixed farming, through the use of animal manure, will improve soil fertility and crop yield.

d. Diversification will reduce producer dependence upon livestock for sustenance, especially as regards milk.

e. Wealth acquired from farming will not be converted to nonproductive livestock holdings.

ANNEX A

FRAME OF REFERENCE

A. Scope of work

1. Re-assess the project goal and purpose to determine continued validity in the light of present circumstances, any significant changes in the livestock sector situation since preparation of existing project paper (PROP) of May, 1971, i.e. effects of drought, and in terms of consistency with the recent DAP and Livestock sector studies.

2. Examine relationship of this project to other USAID, other donor, LCBC, or host country undertaking to determine extent to which this project re-enforces, duplicates or is coordinated with other related efforts. This includes an examination of constraints to project development, and inter-relationships with other organizations necessary to successful comprehensive project development.

3. Review the basic project livestock production and Range Management strategies to determine consistency with recently refined Afr/W strategies, particularly, for the sahel regions.

4. Validate the design and structure of the project with respect to internal consistency, adequacy of resources in relation to requirements, effectiveness of project to date in reaching the targets at the output, purpose and goal levels, and likelihood targets can be met in reasonable time frame. This includes a review of the continued validity of the major assumptions at these levels in the original project design.

5. Evaluate performance individually of major project agents e.g., USAID, U.S. contract personnel, other donors, LCBC, host country technical services and analyze effectiveness of each in moving toward expected results of these project components.

B. Special tasks of team

1. Prepare a PAR report with particular emphasis on measuring progress toward output and purpose levels and include PAR in final evaluation report perhaps as attachment.

2. Consult with soil survey/land use survey technicians and note any implications the findings and conclusions of that survey for revising project design.

3. Analyze certain key aspects of project implementation viz.

a) Appropriateness of mechanisms devised to stimulate ecoperative type actions by herders and responsiveness of the livestock raisers to the project incentives/

b) Appropriateness of phased introduction of project components, i.e. animal Health and water development first, Range, Management and animal Husbandry later. Degree to which first phase inputs ease the way for introduction of more complex and abstract concepts and improvements.

c) Degree to which various size herders (small, medium, large herders as defined in Reyna report) have already participated or have potential in future for sharing in project benefits.

d) Whether water and pasture developments are in proper sequence and balance. Also balance berween shallow and deep wells.

e) Possibilities for mixed farming or forestry interventions in conjunction with livestock project or workable combination of activities in these sectors, noting the additional time and manpower these activities would require.

4. Review and assess effectiveness of project management mechanisms, the coordination between LCBC and donor technical advisors, the degree of involvement of host country livestock and veterinary services and procedures for indigenous staff training and development.

5. Evaluation team should make recommendations with respect to completion extension and/or expansion of phase I of project and possibilities for phase II with preparation of a logical framework matrix to support proposals for either minor project revision or major re-structure and re-design.

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ANNEX B

PAR 76-1 is herein included as Annex B of this Evaluation Report

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PROJECT APPRAISAL REPORT (PAR)

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1. PROJECT NO.	2. PAR FOR PERIOD	3. COUNTRY	4. PAR SERIAL NO.
625-11-130-803	July 1974 TO November 1975	AFR/CWR Regional	FY 76-1

5. PROJECT TITLE

Central Africa Livestock and Meat Production

6. PROJECT DURATION: Began FY 71 Ends FY 77	7. DATE LATEST PROP	8. DATE LATEST PIP	9. DATE PRIOR PAR
	May 21, 1971		7/29/74

10. U.S. FUNDING	a. Cumulative Obligation Thru Prior FY: $ 1,043	b. Current FY Estimated Budget: $ 420	c. Estimated Budget to completion After Current FY: $ 798

11. KEY ACTION AGENTS (Contractor, Participating Agency or Voluntary Agency)

a. NAME	b. CONTRACT, PASA OR VOL. AG. NO.
Lake Chad Basin Commission (LCBC)	Grant Agreement
Near East Foundation (NEF)	Contract AID/AFR-193, T.O.#23

I. NEW ACTIONS PROPOSED AND REQUESTED AS A RESULT OF THIS EVALUATION

A. ACTION (X) USAID	A. ACTION (X) AID/W	A. ACTION (X) HOST	B. LIST OF ACTIONS	C. PROPOSED ACTION COMPLETION DATE
X			Prepare Project Paper (PP) for Phase II	Dec. 1975
X			Include in PP a section on a plan and evaluation to be conducted jointly by LCBC/UNDP/AID/FAC at a mid-point rather then near the end of scheduled project life. Each donor should be encouraged to invite its outside experts or consultants to participate to the extent practical.	Dec. 1975
X			Future project PARs should, if practical, be prepared jointly or in close collaboration with LCBC/UNDP/FAC.	Nov. 1976
			For other details on recommendations, see Part II of the evaluation report.	

D. REPLANNING REQUIRED: REVISED OR NEW: ☒ PROP ☐ PIP ☐ PRO AG ☐ PIO/T ☐ PIO/C ☐ PIO/P

E. DATE OF MISSION REVIEW

PROJECT MANAGER: TYPED NAME, SIGNED INITIALS AND DATE: FR/DP Irving H. Licht 11/10/75

MISSION DIRECTOR: TYPED NAME, SIGNED INITIALS AND DATE: DAR

AID 1020-25 (10-70) PAGE 2 PAR	PROJECT NO. 625-11-130-803	PAR FOR PERIOD July 1974 to November 1975	COUNTRY AFR/CWR Regional	PAR SERIAL NO. 76-1

II. PERFORMANCE OF KEY INPUTS AND ACTION AGENTS

A. INPUT OR ACTION AGENT — CONTRACTOR, PARTICIPATING AGENCY OR VOLUNTARY AGENCY	B. PERFORMANCE AGAINST PLAN: UNSATISFACTORY 1 2	SATISFACTORY 3 4 5	OUTSTANDING 6 7	C. IMPORTANCE FOR ACHIEVING PROJECT PURPOSE (X): LOW 1	MEDIUM 2 3 4	HIGH 5
1. Lake Chad Basin Commission			X			X
2. Near East Foundation			X			X
3.						

Comment on key factors determining rating The UNDP Technical Advisor is a competent veterinarian with experience in Africa, industrious, dedicated, and a good administrator. Working with the LCBC Project Director, he has been able to maintain the tempo of project operations despite the bureaucratic procedures and problems inherent in LCBC involvement.

The NEF Serbewel sector chief has done an excellent job in organizing the planned program in his area and maintains schedules with help of his counterpart and other host country personnel. He is attuned to the local situation and sensitive to the attitudes, interests and needs of herders and farmers in the area. He receives excellent logistical and administrative support from the Contractor (NEF)

4. PARTICIPANT TRAINING	1	2 X	3	4	5	6	7	1	2	3	4	5 X

Comment on key factors determining rating Four participants began 5 year B.Sc.degree studies in Sept.73 in veterinary medicine at African Institutions (Dakar). Another at same time began 3 yr. course at ABU in Zaria in (Agrozo-Technicien) Range/Livestock Technician. Three slots are still vacant: 2 mgt./livestock slots are scheduled for U.S.; a 2nd Agrozo Technicien (Range/Livestock Technician) is proposed for Zaria or Dakar. Cut-off date --continued--

5. COMMODITIES	1	2 X	3	4	5	6	7	1	2	3	4	5 X

Comment on key factors determining rating The great delay experienced in AID/W in the processing and forwarding detailed commodity lists to AAPC has jeopardized field program. Some lists reached AAPC about 7 months after dispatch from CDO/N'Djamena. In a few atypical cases where lists were sent to AAPC, deliveries actually reached Ndjamena within about 4 months of list --cont.-

6. COOPERATING COUNTRY		1	2	3	4	5	6	7	1	2	3	4	5
	a. PERSONNEL					X							X
	b. OTHER			X									X

Comment on key factors determining rating This aspect of the project has been satisfactively implemented with the cooperating countries providing the counterparts and adequate technical personnel on a timely basis and assuring their salaries and other support costs.

Other: Artesian wells have been an issue: LCBC insisted on 2 artesian wells and made pre-payment with the understanding that AID would authorize them upon completion of a satisfactory and/or acceptable comprehensive grazing/land management plan (or perhaps comprehensive range development plan). LCBC has agreed to the condition but the new proposals will be studied very carefully by LCBC Chad and Cameroon, taking account of certain key considerations important to the host agents, e.g. social implications, cattle use patterns, rate of execution, organizational

-- continued--

7. OTHER DONORS	1	2	3	4	5	6 X	7	1	2	3	4	5 X

II(A) 4. Participant Training:

for candidate applications on Dec. 31, 1975 is now intended.

Serbewel Sector Chief is considering a proposal for further training at B.Sc. degree level in Range Management/Livestock for 2 Cameroonians. This level of training is needed to carry out the planned range developmet schemes and also to provide these employees necessary stature and career potential. These will be LCBC employees.

This rate of progress in Serbewel is considered unsatisfactory since selection and recruitment has lagged badly, particularly because range management is to be emphasized more than animal health where infrastructure is already well established and reinforced by project's First Phase operations.

II(A) 5. Commodities:

dispatch.

Several small orders for office equipment, wheel barrels and hand tools have been satisfactorily and expeditiously handled at WACASC. In the future WACASC will replace the private clearing and forwarding agents, at least for transit to Maiduguri where project transport will make final delivery to sites.

II(A) 6. Cooperating Country:

arrangements, personnel and budget requirements, etc.

The conclusions and recommendations may entail additional inputs, e.g. water development, increased surface area, reseeding, reforestation, which may be elements incorporated into a new project design and Project Paper (PP) under consideration for the 2nd-5 year project period, or Phase II FY 1978 through FY 1982.

The rating for "Other" is lower than "Personnel" because LCBC in the past required some prompting by project personnel to furnish necessary support but the situation is improving progressively, itself an indication of growing host confidence in and support of project activities.

II. 7. Continued: Comment on key factors determining rating of Other Donors: Relations with UNDP/FAO and FAC have been excellent. These two donors have been quite flexible and prompt in their financial contributions and working relationships have been harmonious and cooperative. Key factors in the high rating are the experience, skill and dedication of the current technicial advisors. In recent periods, however, the Project Coordinator has been occupied with non-project livestock business because of a LCBC staff vacancy.

III. KEY OUTPUT INDICATORS AND TARGETS

A. QUANTITATIVE INDICATORS FOR MAJOR OUTPUTS		TARGETS (Percentage/Rate/Amount)					
		CUMULATIVE PRIOR FY 75	CURRENT FY 76 TO DATE	CURRENT FY 76 TO END	FY 77	FY ___	END OF PROJECT
Institution of regular vaccination and prophylactic treatment of animals for internal and external parasites	PLANNED	100%	100%	100%	100%	-	100%
	ACTUAL PERFORMANCE	100%	100%				
	REPLANNED			-	-	-	
Establishment of office and storage facilities and technical services at Makari for producers' association.	PLANNED	2	-	-	-	-	2
	ACTUAL PERFORMANCE	2	-				
	REPLANNED			-	-	-	-
Vet posts (5) at Makari, Afade, Goulfey, Fotokol and Massaki, plus 4 vaccination parks at Ouda, Goulfey-Gana, Massaki/ Nganatil and Ngourma. See page 3(c)	PLANNED	9	-	-	-	-	9
	ACTUAL PERFORMANCE	-	4				
	REPLANNED			4	2	-	6
Tsetse Eradication at Taf-Taf reserve.	PLANNED	100%	-	-	-		100%
	ACTUAL PERFORMANCE	100%	-				
	REPLANNED						

B. QUALITATIVE INDICATORS FOR MAJOR OUTPUTS	COMMENT
1. Herdsmen in project area will be organized sufficiently to permit effective annual vaccination and parasite control.	Currently, 115,000 cattle receiving annual vaccinations. External parasites not treated because of slow arrival of needed commodities. see page 3(c)
2. Suitable producers association facilities with trained managers will be established and organized with adequate working capital and credit.	Office for producers' associations completed. Three (3) district posts now completed and one more finished in Jan. 1976. see page 3(c)
3. Herdsmen will be regularly using mineral and protein supplements, will be using dry hay storage and pit silage, will have a number of model herds.	As a demonstration, some 800 calves will be fed protein supplements during May/June for one month periods. see page 3(c)

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II. 7. Continued: Comment on key factors determining rating of Other Donors

III. KEY OUTPUT INDICATORS AND TARGETS

A. QUANTITATIVE INDICATORS FOR MAJOR OUTPUTS (1) Serbewel Cont'd		TARGETS (Percentage/Rate/Amount)					
		CUMULATIVE PRIOR FY	CURRENT FY 76 TO DATE	CURRENT FY 76 TO END	FY 77	FY ____	END OF PROJECT
Establishment of controlled grazing program; reseeding; introduction of protein and mineral supplements; hay and pit silage storage. See notes on page 3(c)	PLANNED	50%	60%	80%	90%		100%
	ACTUAL PERFORMANCE	-	-				
	REPLANNED			-	-	-	-
Maintenance of herd/flock profile and health records.	PLANNED	100%	100%	-	-		100%
	ACTUAL PERFORMANCE	100%	100%				
	REPLANNED						
Technical personnel trained in improved production practices.	PLANNED	40%	45%	75%	100%		100%
	ACTUAL PERFORMANCE	25%	40%				
	REPLANNED			60%	75%		75%
Introduction of improved practices at treatment centers (i.e. preproducers' associations activities)	PLANNED	0	20%	40%	75%		75%
	ACTUAL PERFORMANCE	0	0				
	REPLANNED			30%	60%		60%

B. QUALITATIVE INDICATORS FOR MAJOR OUTPUTS	COMMENT:
1.	
2.	COMMENT:
3.	COMMENT:

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II. 7. Continued: Comment on key factors determining rating of Other Donors

III. KEY OUTPUT INDICATORS AND TARGETS

A. QUANTITATIVE INDICATORS FOR MAJOR OUTPUTS (2) Assalé		TARGETS (Percentage/Rate/Amount)					
		CUMULATIVE PRIOR FY	CURRENT FY 76 TO DATE	CURRENT FY 76 TO END	FY 77	FY -	END OF PROJECT
Institution of regular vaccination and prophylactic treatment of animals for endemic diseases and for internal and external parasites.	PLANNED	100%	100%	100%	100%	-	100%
	ACTUAL PERFORMANCE	100%	100%				
	REPLANNED			-	-	-	-
Establishment of office, storage and vet. post at Karal.	PLANNED	3	-	-	-	-	3
	ACTUAL PERFORMANCE	3	-				
	REPLANNED			-	-	-	-
Three (3) more vet. posts and three (3) vaccination parks.	PLANNED	6	-	-	-	-	6
	ACTUAL PERFORMANCE	-	-				
	REPLANNED			2	1		3
Tsetse Eradication.	PLANNED	100%	100%	-	-		100%
	ACTUAL PERFORMANCE	100%	100%				
	REPLANNED			-	-	-	-

B. QUALITATIVE INDICATORS FOR MAJOR OUTPUTS	COMMENT:
1. Herdsmen in project area will be organized sufficiently to permit effective annual vaccination and parasite control.	130,000 cattle receiving annual vaccinations. Over 23,000 calves aged 0-6 months treated for internal parasites (worms).
2. Mineral and protein supplements; reseeding; hay and pit silage, etc.	In Assalé, neither mineral nor protein supplements appear economically promising. Herders not yet receptive to hay and silage nor culling through castration, etc.
3.	

III (A) Quantitative Indicators

Vet. Posts and Dispensaries -

Contractor exhausted FAC funds allocated so the targets are now reduced from 9 to 6. However, FAC will try to shift some of its project funds to complete all 9. If this is not practical in Phase I, it will be considered again in the PP for Phase II.

Controlled Grazing Reserves -

Grazing reserves will not be attempted until broad range development is established and training of appropriate personnel is more advanced.

Reseeding - Reseeding will be attempted in the dry season of FY 1976 using selected native grasses.

Mineral Supplements - Supplies purchased for FY 1975 and FY 1976 are being distributed.

Protein Supplements -

Peanut meal and rice bran were purchased and stockpiled but not yet used. It is planned to introduce them at a favorable period, probably towards the end of FY 1976 dry season. Under current conditions with feed costs high relative to cattle sale prices, this is not now a promising demonstration activity.

Hay and Pit Silage - Legume hay was seeded and stored in FY 1974 and FY 1975. No silage has yet been attempted.

Animal Breeding - Selection has begun on a limited basis. Will continue with cattle entered in the Livestock Show Fair in Jan. 1976 after determination of selection criteria in consultation with herder groups. Cows will be chosen on the basis of milk-production measurements. Culling will be introduced when UNDP feedlot is operating.

Marketing - Plans are being finalized for the small abattoir at Makuri, construction is to begin in the FY 1976 rainy season. The UNDP holding/feeding facilities at Kousseri and Koundoul were in operation but were hampered by illness of key personnel, difficulties in purchasing and related problems. Plans are nearing completion for 2 new UNDP holding/feeding facilities at Marra, one on each side of the river for Ausala and Berbewi sectors.

III (B) - Qualitative Indicators - cont'd

Health vaccinations - Roughly 12,000-13,000 calves aged 1-6 months now treated once a year for internal parasites (worms). Goats, sheep, donkeys, horses vaccinated for anthrax.

Producers' Associations - Basis for associations now laid. Plan 5 groups to be organized sequentially by Oct. 1977 with managers trained. Further studies finished soon for purpose of final selection of association groupings. Timing will follow after careful planning of organization and program content.

Supplements - Herdsmen will be exposed to use of mineral and protein supplements with values demonstrated. Will be using dry hay storage and pit silage. Four model herds will be identified and used for demonstrations.

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IV. PROJECT PURPOSE

A. 1. Statement of purpose as currently envisaged. 2. Same as in PROP? [X] YES [ ] NO

To demonstrate the potential for improved livestock production in the "traditional" sector through an integrated pilot program in Assale-Serbewel which will increase capabilities of livestock producers to deal with their own problems and will increase the effectiveness of the government livestock services.

B. 1. Conditions which will exist when above purpose is achieved.	2. Evidence to date of progress toward these conditions.
1. Established animal health program providing effective control over endemic diseases and parasites. 2. Local livestock producers organizations which assist livestock producers in obtaining necessary production-related commodities and in selling livestock. 3. Significant sustained improvement in the level of animal nutrition. 4. Improved animal husbandry practices established among local livestock producers with herd composition and sustained high-level of off-take. 5. Alternative marketing channels established to guarantee efficient movement of saleable animals.	More than 35,000 calves were treated each year for internal parasites during the spring of 1974 and 1975 in both sectors. A vaccination program has been organized for treating cattle against endemic diseases. Treatments began on a systematic basis during FY 1974 covering about 220,000 cattle. Initial steps have been taken to organize the herdsmen into village groups to function as preproducers' associations.

V. PROGRAMMING GOAL

A. Statement of Programming Goal

The broader objective to which this project contributes is increased livestock production efficiency in the Lake Chad Basin in an equitable manner. If there is to be any significant enduring improvement in the living conditions of the inhabitants of this area, efficiency, not merely production or animal numbers, must be increased.

B. Will the achievement of the project purpose make a significant contribution to the programming goal, given the magnitude of the national problem? Cite evidence.

Yes. The achievement of the project's purpose will be significant. It is anticipated that the annual off-take of animals will increase from 7 per cent to 15 per cent. Calf mortality will be reduced from 40/50% to 25%. Calving rate will increase from 4% to 60/65% per year. Animals will mature in 3-4 years rather than 6 years as at present. Recent data indicate effective calving rate of about 55% has been reached in both project sectors for past two years. This compares with a rate of about 40% generally prevailing at project start.

ANNEX C

SERENGWEL SECTOR - LIVESTOCK NUMBERS

YEAR	1971		1975		Increase between 1971 and 1975			
					TOTAL		Average annual	
Species	Number	%	Number	%	Number	%	Number	%
Cattle	104,019	74.0	118,979	65.5	14,960	14.4	3,740	3.6
Goats	29,513	21.0	49,858	27.4	20,345	68.9	5,086	17.2
Sheep	7,094	5.0	12,826	7.1	5,732	80.8	1,433	20.2
TOTAL	140,626	100.0	181,663	100.0	41,037	29.2	10,259	7.3

Notes:

1. Source - project sector chief

2. Increases may in part be accounted for by improved producer rapport and methods of enumeration.

3. The fact that both sheep and Goats increased in number much faster than cattle probably due to a) shorter generation interval, b) higher prices, and c) overgrazing wherein sheep and goats have a natural advantage over cattle.

ANNEX (D)

Bilateral vs Regional Framework for Project 803

A bilateral framework for a follow-on project would probably have several advantages for Chad and the CDO office in N'Djamena. It would provide more conspicuous visibility for any AID material and commodity assistance in the Assale sector, would permit closer contact and working relationships with Chadian Livestock Services and would make possible a stronger reinforcement of AID impact on the livestock sector near the Kanem Prefecture where AID is proposing the Herder Training subproject. To the extent that LCBC acts as another bureaucratic layer with its procedures and delays, a bilateral framework would probably simplify project operations and implementation. The LCBC Executive Director has in the past provided strong leadership for the project, but this has slackened in recent periods when he was away from post on business or otherwise preoccupied on present LCBC matters.

Participant training could also be handled more expeditiously perhaps since the PIO/P's for numerous participants in range management and related fields under Project 201 seem to be moving rapidly whereas a similar LCBC effort under Project 803 is lagging badly and still faces problems.

Continuing the regional framework through LCBC, however, would help maintain the momentum that has been attained during the initial years of Phase I and facilitate utilization of the infrastructure and institutional arrangements now fairly firmly in place in each sector. It would probably assure continuation of multidonor support which also provides various advantages such as the pooling of technical skills, better continuity, insulation from nondevelopmental pressures, fewer AID problems in recruiting French-speaking technicians, and encouraging greater donor cooperation on other developmental efforts in the region. With the attachment of the Bornu sector of Niger to the LCBC project framework, although no AID inputs are expected, there is the basis for greater pooling of skills, knowledge, and experience on other livestock sector strategies for similar ecological zones and/or conditions.

The RDO in Yaounde has a clear preference for continuing under LCBC because the LCBC is physically close to the Serbewel sector and is now able to provide stronger support than the Cameroonian services of Yaounde or North Cameroon.

The LCBC Secretariat is still a young organization, anxious to improve its image with client member countries. Its interest in demonstrating effective, honest administration and a capacity for assisting developmental projects in the area helps sustain continued support for Project 803.

A question has been raised whether LCBC might be dispersing its resources too thinly by involvement in field operations in such narrow localized areas as Assale-Serbewel where national services have a major role in operations in any case. Rather, it was suggested that LCBC might better concentrate on broader regional development problems such as the formulation of a comprehensive view of the resources of the whole of the Basin as a basis for individual developmental activities, or devising regional livestock arrangements for permitting freer movements of livestock among member countries.

Actually, the choice is more apparent than real. LCBC is still a loose organization proceeding mainly on an "ad hoc" basis on specific activities, usually narrow in scope, where common agreement among members is feasible. The members do not yet appear willing to commit sizeable resources to undertake any large-scale undertakings through LCBC, especially since these are likely to require prolonged, detailed planning stages and member countries are disturbed and frustrated by such lengthy studies. In this connection, the DAP paper, while recognizing that the long-range perspective was important in the Lake Chad area, stated that AID in the next five years should focus on training and experiment in small-scale even micro-scale projects in the Basin.

The evaluation team observed that the multidonor arrangement with LCBC has worked quite well for Project 803. Important AID negotiations are still continuing on the artesian wells and the adoption of grazing management plans. The project design team will probably need to work closely with LCBC staff either on Project 803 or a new Phase II activity.

At this time, the evaluation team concludes that the regional approach through LCBC would be more appropriate than direct bilateral assistance. Through its involvement in several field undertakings similar to Project 803, LCBC seems to be squarely on the course that had been envisaged in the late 1960s or early 1970s by the Secretariat and the leadership of the four member countries.