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PRELIMINARY FINDINGS ON
APPLYING AID INFORMATION RESOURCES
TO ISSUES-ORIENTED STUDIES

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INTRODUCTION

This report will outline some problems, issues, and findings which arose during our early data collection efforts for the Studies Division's study paper on livestock programs. The report records our attempts to (a) locate information of value in the livestock study, (b) ascertain the general applicability of AID's data systems to the sorts of evaluative efforts included in the Studies Division workplan, (c) identify data collection procedures which might be appropriate for subsequent studies, and (d) think about a couple of alternative ways of approaching and organizing Division research projects.

Originally, we had hoped to find data of enough consistency, detail, and quality to allow us to examine hypotheses about how specified sets of project inputs were causally related to specified sets of outputs. Instead we find that the dearth of reliably reported and usefully assembled data precludes the use of many of the quantitative analytical tools we had hoped to bring to bear on a study of the determinants of project effectiveness. Other problems stem from the highly idiosyncratic nature of AID's project portfolio in the livestock sector; there are too many uncontrollable contextual variables to allow us to feel very confident about many statistical comparisons we might have tried had the data been available.

The quality and detail of project information also seems to vary at different points in the planning, implementation, and evaluation cycle. The most elaborate and careful presentations of data are made in the project paper and other early planning and contracting documents. In contrast, so little detail is included in the later implementation and evaluation documents that we suspect that it may be necessary to prepare an oral history based on interviews with actual participants in order to truly understand what happened in any given project.

Consequently, we feel that the data resources discussed herein are probably most useful when used to familiarize the investigator with the problems, issues, and methods associated with AID activity in the sector under study. They may be helpful in identifying the questions to be asked and the ideas to be discussed in a more detailed investigation that may include interviews, field trips, and the like. One should be careful, however, not to place too much confidence in their reliability as evidence of what actually happened in a particular project.

The sections which follow discuss our attempts to (a) use the automated and documentary data resources to define the universe of projects that should be considered in a study project, (b) find ways to characterize the projects within this universe in ways that might be instructive, and (c) locate sources of more detailed project information.

DEFINING THE UNIVERSE OF PROJECTS

For any sector study, the Studies Division ideally should have a list describing the universe of relevant projects that is both lean and exhaustive. In this section, we discuss ways to: (a) obtain the proper list for this study; and (b) judge the best way to find the universe in future studies. We are therefore keeping track of time costs, as well as noting the relative completeness and selectivity of different procedures.

1. Keyword search

By submitting to the AID Reference Center (ARC) a list of keywords associated with the topic of study, one can obtain a computer printout of all project abstracts located in the DIS system (covering most projects active from 1974 to 1976) that mention the keywords. Division staff can save ARC time by submitting keywords spelled exactly as listed in the thesaurus after the word ENTER.

We are using various keyword lists for the livestock study in an attempt to determine how detailed future keyword lists should be, keeping in mind, however, that the answer is likely to be sensitive to the nature of the study. Studies of a more amorphous nature (a study of asset distribution, for example) may require more extensive keyword searches.

- a) One printout of 77 projects was obtained May 3 by the keywords LIVESTOCK, BEEF, CATTLE. A second printout of projects identified by the keywords SWINE, SHEEP generated 6 projects, only one of which wasn't included among the 77.*
 - b) Another list of projects will be obtained from a longer list of keywords we compiled by combing the keyword thesaurus for all words associated with livestock (based on our laymen's familiarity with the subject). See Annex 1 for the keyword list. Practical Concepts Incorporated (PCI) will prepare a
- * Of the 77, 29 were projects in the Sahelian countries plus Tanzania.

printout (edited to eliminate duplications) of all projects elicited by these keywords and will also advise us on how the extensive list can be painlessly pared.

Note: DIS printouts may contain duplicate references to the same project, with only the project lifetime and obligation figures changing (8 of the 77 projects in the May 3 printout were duplicated from two to five times). Questions as to which reference is most appropriate may be addressed to Nina Vreeland (235-9215) or Bob Cunningham (235-9167).

2. AICS code search

In addition to the keyword search, PCI^{**} will run an AICS (Activity Identification Classification System) search using the two technical codes we identified as relevant: 078, Agricultural Production, Livestock; and 095, Rural Natural Resources, Range Management. For this study, the classifications under the purpose and special concerns codes are irrelevant.

PCI will compare the relevant comprehensiveness of the keyword and AICS searches, and note the time required to do each. Projects called forth by one system and not the other can be searched by project number to determine if additional projects can be accessed by different codes or keywords. The emphasis in this first study is to use an interactive, iterative search procedure to determine the best method for future use. After PCI compiles the extensive lists of projects, we (Cox and Fitzpatrick) will go through the elicited project abstracts by hand, eliminating clearly irrelevant projects (such as human vaccination projects called forth by the keyword VACCINE),
^{**}These tasks do not necessarily require assistance from outside contractors.

again noting time required. PCI will then prepare a final master list of projects.

3. Manual search of the Congressional Presentations

We will go through Congressional Presentations (CPs) in order to:

- a) Identify projects not already identified by the ADP searched, thus completing our universe. Also, knowing how many projects were excluded from the BIS list will help us decide how seriously to take the DIS narrative-based exercise described in the next section. Annex 2 contains a list of Sahel livestock projects not included on the May 3 DIS printout that are described in Africa Bureau CPs for 1978, 1977, 1976, 1973 and 1971.
- b) Determine the costs of a totally manual procedure for identifying the universe of projects. By checking the CPs for a few years for all bureaus, we can extrapolate to estimate the time required to check CPs for all years. It may be that editing time plus the time required to scan CPs for projects not on the DIS files add up to make time savings from the use of the keywords negligible. We doubt it, but it costs little to do the extrapolation and find out. Not all projects presented to Congress are implemented, but we can check this out by seeing if the projects are in the CPDB or PAIS data files.

CHARACTERIZING PROJECTS

After identifying the universe, we want to find a way to characterize projects in ways that focus on specific issues. What constitutes an "issue" can be described in various ways and projects could be categorized according to:

- Broad fields with which a project is associated, e.g., veterinary, animal

husbandry, range management, forage production, marketing and pest control. Projects are likely to be associated with more than one field.

-- Project purpose as stated in the narrative printout.

-- Proposed outputs as they are described in the narrative printouts, e.g., extension training, ranching associations, vaccination treatments, etc.

Most projects have numerous and diverse projected outputs.

-- Assumptions implicit in the narrative description. Although the printouts do not state explicit assumptions as such, we may find assumptions hidden in the DIS descriptions of project problem, goal, purpose, strategy or outputs. If the project purpose or strategy, for example, is to sedentarize nomadic herdsmen, the implicit assumption may be that transhumance is ecologically unsound. We have in mind here the sort of assumptions mentioned by John Lewis in his June 26 note describing 12 project component issues.

In general, we recommend that the DIS project narratives be used to help identify issues to be studied more closely. Even a one or two-hour acquaintance with the abstracts may suggest which issues are most appropriate for a given study and how the ADP system might be utilized. By examining the DIS printout more thoroughly, we are likely to learn more about the appropriateness of various issues. For example, we may find that issues the division staff had thought to be crosscutting are in fact localized to only a few countries, or that they are not addressed at all. On the other hand, we may be able to help identify new issues not previously considered important.

More specifically, we hope to identify trends and recurrent approaches in order to:

- Suggest issues the study should address;
- Identify categories useful in tracking outputs, expenditures and obligations;

- Determine the extent to which specific purposes and outputs coincide; and
- Identify project assumptions and strategies that the professional staff may compare with what they consider to be more appropriate approaches to the issues.

Given the nonquantitative and ambiguous nature of assumptions, goals and outputs, we don't expect that these exercises will yield any definitive findings. They may, however, suggest some interesting questions. The following procedures should be tested to see if the ADP system can help us characterize the projects as discussed above:

1. Categorize by INQUIRE word scan

As a first step, we hope to be able to categorize projects using a feature of the INQUIRE system that scans project descriptions, or separate parts thereof, for any word or phrase (i.e., it is not limited to keywords). To find out how many projects focus on herd stratification, for example, we can scan all project outputs for phrases such as "new lands," "young cattle," etc. As with the other tasks mentioned in this report, this exercise will be used both to help identify issues and to test the capacity of the ADP system. We will not know how to best categorize projects until we go the mat with the computer.*

2. Categorize by hand

If the word scan procedure proves unhelpful, we could attempt to categorize projects by hand, noting the issues addressed and the outputs described in the project narratives. This manual characterization could be done for a subset of Sahel projects as a quality control to the method described above and to determine the relative time costs.

* We note that project categorization will prove more or less useful depending upon the format selected for the issues study. If the staff decides to undertake in-depth case studies of only a few countries and projects, rather than attempting to reach broader conclusions and recommendations, then the mapping

3. Logical framework assumption search

The logical framework summaries in the project papers do state explicit assumptions, although these are not abstracted onto the computer data bank. Generally these explicit assumptions appear to be innocuous statements (e.g., "host government will continue project funding"), but some more interesting assumptions may emerge. The sample search of project papers proposed above can also be used to note important explicit assumptions.

4. Mapping outputs and rhetoric

a) By using the Boolean operators (X and Y, X or Y, X and not Y) capacity of INQUIRE in combination with word scans, we hope to be able to indicate the frequency with which different types of outputs coincide. This exercise could be used, for example, to check project experience against the hypothesis that forage production is a necessary concomitant of mixed farming. We anticipate that the exercise might suggest areas of mismatch that the professional staff could investigate further.

b) The word-scan and Boolean operators capacity might also be used to correlate project goal and purpose categories with outputs, to suggest the match-up between AID rhetoric and intended outputs. Both are only projections, but they may illuminate instances in which project designers specify purposes inconsistent with the planned outputs.

5. Narrative printout quality control

a) The DIS narrative descriptions are abstracted primarily from the project design summary logical framework annexes, which are themselves abstracted from the body of the project papers. We propose to look at a sample of documents to check the quality of these two summarizations. (Our preliminary impression is that the abstracts are faithful.)

* procedure may be best used to help identify the projects to study. Division staff presumably would want to investigate in depth only those projects that have similarities to other projects and countries.

b) In addition, PCI staff have promised to find out if and how the DIS narratives are updated. By examining purpose, goal and output statements, we hope to be able to demonstrate trends in project rhetoric. If, however, the narrative printout is not changed when project purposes or planned outputs change, or if the narrative is updated by expunging the earlier statements, time trends may be difficult to track. Likewise, if outputs are updated but the original purpose statement is left unchanged, correlations between outputs and purposes may be spurious. The PCI staff have promised to find out if and how the DIS narratives are updated.

FINDING DETAILED INFORMATION ON PROJECT PLANNING AND IMPLEMENTATION

Once the research team has defined the set of projects to be considered in the study, and has completed whatever characterization activities it deems appropriate, it may be useful to focus more closely on detailed data on project planning and information.

This phase of the study may subsume a number of activities:

- A review of either planned or actual project expenditures may say more about the technologies and methods assumed to be appropriate for the stated goals than was apparent in the DIS narrative review.
- A review that juxtaposes planned activities with actual accomplishments may offer insights into the appropriateness or feasibility of various planned outputs.
- A comparison of plans with achievements may provide a preliminary answer to the epistemological question, "How much do planning documents tell us about project experience?" — thus allowing us to decide on the dosage of salt

to be taken with reviews of project papers and other planning documents in subsequent studies.

This section of the paper will discuss several sources of detailed project data. We do not mean to suggest that every source noted herein is likely to be of value to any of the Division's proposed studies. Some sources have been included simply because we had a look at them in the course of our investigations, and wanted to include our findings so as to save others a similar chore when they look for useful data.

1. Early Project Planning Data

The main source of planning data is the Project Paper. Data from the face-sheet of document is regularly read on to the Country Program Data Bank's (CPDB's) computer files. These automated data elements are summarized in a survey of the Agency's ADP systems submitted to the Studies Division in May. The most potentially useful automated information taken from the project papers are the projections of annual and life-of-project costs. Unfortunately, these cost projections are aggregated at a level that offers no helpful insights into the specific approaches or technologies used in a given project.

More extensive data, however, are included in the texts of the project papers. These data include detailed narratives on the projects' strategy, objectives, the outputs planned in service of those objectives, and the technologies and methods to be used to generate those outputs. Moreover, many project papers contain careful cost breakdowns which show what proportions of projected expenditures are scheduled for specified inputs (such as U.S.

advisors or construction) or for specified outputs.*

At first glance, the early planning data seem to be presented in sufficient detail to allow us to undertake some interesting analyses of the components of project effectiveness. The non-automated data in the PP narrative seem particularly promising. Our enthusiasm on this count, however, is dampened by the observation that quite frequently the plans presented in the project paper do not very closely resemble the mix of project inputs and outputs that are actually implemented. For example, an audit of the Mali project cited above (see Audit Report Number 3-688-77-33) has shown that of the four major outputs identified, only one (the Tienfalla Feedlot) had been addressed with any vigor at all. This may not be so debilitating if we acknowledge at the outset that our studies are focusing on the content of project planning and design processes. It may be more troubling if we attempt to infer any consistent continuity between design and implementation.

2. Contracting Data

Data sources associated with the contracting process include the PIO/Ts, the PIO/Cs, the PIO/Ps, the contracts themselves, and the voucher files. What we were looking for in all of these was some reliable source of itemized project expenditures.

The Project Implementation Orders listed above are all forms which authorize the drafting of a contract for technical services, commodities, or participant

* For example, the Mali Livestock Development Project lists the building of the Tienfalla Feedlot and support for sedentary livestock production as

training respectively. The vouchers are forms submitted by the contractor to SER/FM listing expenses and requesting reimbursement.

The PIO/T files are kept in the SER/CM/ROD offices in Rosslyn. They usually contain interesting detail regarding the types of services to be provided by the contractor, the skills and substantive qualifications of members of the work team, and the work schedule proposed for the contract effort. A reasonably complete set of PIO/Ts is available for technical services contracts for projects active during the last 3 years for which AID/W action was required on the contract. More likely to be missing from the files are PIO/Ts for mission-action contracts. No one was able to tell us what proportion of all PIO/Ts were for mission-action contracts, or what proportion of mission-action PIO/Ts were ever sent to AID/W for CM/ROD's records. We were told that PIO/Ts fairly faithfully resemble the contracts that they presage.

PIO/Cs are kept in SER/COM/CP's offices in Rosslyn. Reasonably complete sets of PIO/Cs are available for active projects for which AID/W action was required for the purchase of commodities. Unfortunately, however, many commodities are purchased on mission-action contracts or purchase orders which may never find their way to the SER/COM files in Rosslyn. There is no reliable way to tell how seriously under-reported project commodity expenditures are in these files. We were told, however, that PIO/Cs are very accurate records of the expenditures for which they purport to account. We doubt that they will be very useful to any of the Division's planned studies.

* two of its outputs, and gives detailed expenditure breakdowns for each. However, a third listed output has no such detail associated with it. The point is, even the project papers often fail to include the sort of detail we might want in every instance.

PIO/Ps record information on host country participants who are sent to the U.S. for training. Data available from this source include the project funding the training, the type of training received, the school involved, etc. No cost data are available. Some under-reporting may occur where training was arranged by a contractor without the collaboration of AID personnel. Some PIO/P data is automated on the Participant Training Information System. PIO/P files are maintained at the SER/IT offices in Rosslyn by Sandra Gardner.

The contracts written for technical consultants' services may be found in the CM/ROD files in Rosslyn. These documents offer valuable information on the scope of work finally agreed upon, the mix of professional skills to be provided by the contract team, and the reporting requirements defined for implementation progress reports. The files themselves are loosely organized by contractor, not by project. Given the organization of the files, trying to find the contracts for more than a handful of projects would be a Herculean task which we do not recommend.

The vouchers submitted by the contractors are kept in FM/PAD in AID's Universal North building. We had hoped that these files would allow us to reconstruct a useful itemization of expenditures under a given contract. We were disappointed. The vouchers contain little useful detail on the types of services for which the Agency was billed.

3. Periodic Financial Data

All of the financial data which is regularly reported to AID/W on project obligations and expenditures are automated on the PAIS ADP system maintained

by SER/FM. These data are abstracted from the Project Financial Activity Report, a quarterly report that is also known as the U203 report. The PAIS system offers quarterly breakdowns of project obligations and expenditures in the project input categories specified by the project manager on the U203. Until October 1977, only 5 standard input categories were admissible:

US Personnel

Local and Third Country National Personnel

Participant Costs

Commodities

Other

Since then, project managers have been given a little more leeway in defining the input breakdown they want to use in their reports. Unfortunately, however, no guidelines were issued which specified breakdowns which might be more analytically useful, and the trend has been continued reporting according to the 5 standard categories.

4. Evaluation and Implementation Data

There are several sources of periodic evaluation and implementation data. Among these are the audits prepared by the office of the Area Auditor General, the monthly or annual progress reports prepared by the contractor, the Project Appraisal Reports (PARs) which were submitted annually by the missions until two years ago, and the Project Evaluation Summaries (PESs), which superceded the PARs this year.

These documents may prove to be somewhat difficult to locate. The best way to find a PAR or a PES seems to be to ask the Evaluation Officer in the

appropriate regional bureau. We learned that these documents may not be available for every project, as some missions simply neglect to submit them. The contractor reports are most likely to be found at the appropriate country desk. The AAG's office has a catalog of all audits, listing these by year and by country. Unfortunately, however, audits seldom focus on a single project. An audit will typically focus on a country's program or on a sectoral program, mentioning the projects only in the context of the broader program. Consequently, audit information on a particular project may be difficult to locate.

The audits contain very impressionistic reviews of project experience. They make no attempt to conduct a rigorous financial audit. Instead, they present discussions of implementation problems noticed by the auditor. There is no predictable focus or format, but there are often many interesting and instructive insights into project performance. They may be especially valuable insofar as they suggest things that might deserve a closer investigation.

The PARs contain no financial data, but may be the best source of consistent information on what actually was done. Planned outputs are compared with actual outputs for "key output indicators and targets" such as "miles of feeder road constructed" or "Maliens trained in the U.S." In addition, contractor, participant training, commodities and host country performance are rated and evaluated in candid, concise statements. Additional sections that evaluate progress in meeting the project's avowed purpose and goal may be useful not only in evaluating AID rhetoric but as a means of seeing how rhetoric changes from the original project papers.

For some projects, the brief detail in the PARs is fleshed out by longer evaluation reports, minimal abstracts of which are read out on the DIS keyword printout. (Frank Dimond, in his June 15 memo on evaluation holdings, noted that the evaluation reference feature of the DIS printout cited some evaluation material for about 75% of the projects listed on the DIS system.) The PES reports will contain more information than the PARs, mainly in the form of half-page narratives. Herb Turner's office should be consulted for more information on how the PAR and PES data could be used in division studies.

Depending on the project and type of contract, contractors are supposed to submit monthly or yearly reports. Whether because contractors are lax in submission or desk officers lax in filing, not all reports are available. For Mali Livestock I, we could only find the second of three annual reports that should have been submitted to date.* Like the audits, contractors reports provide no rigorous financial detail, and have no consistent format that allows any easy crosscutting comparisons between projects. They do describe summary results and implementation problems, and would be useful for in-depth project case studies.

CONCLUDING REMARKS

These first forays into the AID information holdings have impressed us with the need to devise study plans which do not presume the availability of more appropriate data than actually exist. The data that do exist are probably inappropriate for rigorous sorts of quantitative comparisons because

*For Mali Livestock II, Chemonics has submitted monthly reports describing their progress in meeting project paper outputs. A one-time "trip report" by Chemonics is a more readable document.

(a) project contexts vary too much to allow us to put much faith in the numbers, and (b) for various reasons, project experience is under-reported and many useful sorts of data are simply unavailable in AID/W.

Consequently, we propose that the Division approach its study topics as follows*:

1. Define the universe of projects that may be relevant for a given study. Earlier we outlined a process for using ADP systems to assemble a complete listing. As the study team decides how comprehensive the universe should be, it will obviously also want to consider the degree to which the issues and contexts vary in different geographic regions, the relative significance of the issues in the different regions (where do we suspect, ex ante, that the gap between AID practice and identifiable design desiderata is most alarming?), and the availability of professional expertise.
2. Review the literature and other sources of expert opinion on the sector under study to get an idea of the major issues and problems involved. This review should be integrated with the universe definition phase above to ensure an issue-motivated set of projects for study. A familiarity with the issues will also help the Division to decide upon the categories according to which it wants to characterize project experience.
3. Review the narrative summaries printouts prepared by DIS to become familiar with the manner in which they outline project experience. This review will help to identify buzz words that may be used to identify project categories in the computerized word scan exercise described. Much of this printout review

* We do not intend that these steps be taken in strict sequence. They are presented roughly in order of incidence, but some elements of 2 and 3 may enlighten Step 1, and so on.

will develop formats for tabulating the incidence of various issues, buzz-words, etc. as described in the "Characterizing Projects" section of this paper.

4) Identify a small handful of projects that may be subjected to much closer scrutiny. It may be necessary to don the garb of the oral historian to get to the bottom of the the story of any given project. It may be necessary to study a large number of scattered documents, reports, and evaluations. The lessons the Division may want to learn from a particular study (about the processes that actually determine project outcomes) may only be accessible in this manner. Such a painstaking approach may not be feasible for a large number of projects. The decision as to how many and which projects ought to be looked at closely should consider:

- (a) The number of projects in the universe. Are there few enough to allow a reasonably close look at all of them?
- (b) The available documentation. Documentation for likely projects (such as the Mali Livestock I project) should be assembled. The Division may want to reconsider projects for which there is relatively little documentation in AID/W.
- (c) The available personnel. Is there someone around who is familiar enough with a certain project that he/she could get a lot of mileage out of a quick investigation?
- (d) The generalizability of findings. Is the project proposed for detailed study one that has a great deal in common with other projects in the study sector, or is it atypical? The impact of any study product will largely depend upon the extent to which the consumers of the study (that is, policy-makers, project designers and managers) perceive the findings to be useful.

- (e) Politics. Is the bureau or desk with which we must cooperate inclined to be helpful, or do they seem to feel threatened by our interest?

We feel that this approach will allow a study to: (a) focus on the elements that actually determine project outcomes; (b) come up with defensible findings that steer clear of the pitfalls of trying to generalize from the incomplete histories of too large a number of diverse projects; and (c) produce finds that nevertheless are useful and instructive for project designers and managers in a number of projects. In short, it helps the researchers to identify questions and issues to be investigated more closely, and avoids using the data systems to make statements that are spurious and analytically indefensible.

Keywords for livestock study

A. Do one list just by calling for projects where: "Keysubj contains (LIVESTOCK, LVSTK)"

B. A more exhaustive list of keywords associated with livestock projects:

ALPACA
ANIMAL DIS LAB (Animal disease laboratory)
DISEASE LAB (Animal disease control laboratory)
ANIMAL HEALTH (a broad category)
ANIMAL IMMUNIZ
ANTHRAX (A cattle and sheep disease)
ANIMAL NUTR
ARTIF INSEMNTN
BEEF (Broad term: meat products)
BEEF INDUSTRY
BEEF MKTG
BLACKLEG (Broad term: Cattle disease)
CATTLE
FORAGE HANDBOOK (Cattle feeding and forage production handbook)
CATTLE CRUSH
CATTLE DISEASE (NT: Anathrax, blackleg, foot & mouth disease, pasteurella, pleuropneumonia, rinderpest)
DAIRY CATTLE
DAIRY CROSSBRED (Dairy crossbreeding ranch)
DAIRY EQUIP (Dairy farm equipment (modern))
DAIRY INDUSTRY
DISEASE PRV CTL (Disease prevention and control (animal))
FAT TECHNIQUE (Fattening techniques (modern))
FEED
FEED COMPOSITN (Feed (nutritional value))
FEED INFO CNTR
FEED LAB
FEED MILL
FEEDLOT (confined area where cattle are fattened for slaughter)
FOOT MOUTH DIS (Foot and mouth disease)
FORAGE (food for animals, especially when taken by grazing)
FORAGE HANDBOOK (Forage productizn handbook)
FORAGE TECHNOL
FORAGE SUPPLMNT (Minerals added to diet)
HEMOPARSITE DIS (Hemoparasitic disease)
INTEG RANGE MGT (Integrated range management)
LIVESTOCK
LVSTK COST STUDY (livestock cost/benefit study)
LIVESTOCK AGCY (Livestock development agency)
LVSTK DEVEL SYS (Livestock development--systems approach)
LIVESTOCK INDUS
LIVESTOCK MKTG
LVSTK PLAN PLCY
LIVESTOCK PRO (Livestock procurement system)
LIVESTOCK PRACT (RT: artificial insemination, selective breeding)
LIVESTOCK PROD
LVSTK PROD EDUC (Livestock production training)
LIVESTOCK RSRCH (Livestock research)
LLAMA

Keywords for livestock study cont.

Annex 1, p.2

MEAT PRODUCTS
MILK
MOBIL VAC UNIT
NATL LVSTK TRNG (National livestock training center)
PARASITES
PASTEUURELLA
PEST CONTROL
PLEUROPNEUMONIA
RANCH MGMT
RANCHING ASSOC
RANGE MGMT
RANGE STUDY (Range resources study)
GRASS SEED (Rangeland grass seed)
REGNL LVSTK PRG (Regional livestock program)
RINDERPEST
RORARIONAL GRAZ (Sic. Should be ROTATIONAL GRAZ, but entered misspelled.)
SATER CATCH (Earthwater catchement—livestock)
SELECTIVE BREED
SHEEP
SHEEP COOP
SHEEP MARKETING
SHEEP PRODUCTN
SILAGE
SLAUGHTERHOUSE
SM ANIMAL FARM
PRIV SLAUGHTER (Slaughterhouse (private ownership))
SLAUGHTER SANIT (Slaughterhouse sanitation)
SLAUGHTERING
SWINE
TICK CNTRL CRTR
TRYPANO (Trypanosomiasis)
TSETSE FLY
VACCINATOR TRNG (vaccine words probably apply more to humans)
VACCINE
VACCINE DEVEL
VETERINARIAN
VETERINARY EDUC
VETERINARY LAB
VETERINARY MED
WOOL
ZOOLOGY

Livestock Projects not Included on the May 3 DIS Printout

A. The following projects are described in the 1976, 1977, and 1978 Africa Bureau Congressional Presentations:

number	title	start	end	country
6260203	Entente Food Production	76	81	Regional
6980414	Regional Remote Sensing	77	82	Regional
6250010	LCBC Livestock and Mixed Agric.	78	83	Regional
6820201	Integrated Rural Development	77	81	Mauritania
6830202	Niger Range and Livestock Management	77	82	Niger
6860235	Forestry and Land Use Planning	79	84	Upper Volta
6310004	North Cameroon Livestock and Ag. Dev.	78	83	Cameroon
6500017	North Kordofan Agric. Development	79	84	Sudan
6210144	Tsetse Fly Control	79	84	Tanzania

B. The following projects are described in the 1971 and 1973 Africa Bureau Congressional Presentations:

6650174	Crop/Livestock Production	73	78	Ethiopia
6150100	Range Development	61	72	Kenya
6170015	Livestock Development	63	70	Uganda
6250601	Livestock and Meat Marketing	73	78	Regional
6980307	International Livestock Dev. Instit.	73	82	Regional