

PDWAL 041

FINAL REPORT
of the
TITLE XII STRENGTHENING PROGRAM
(MATCHING GRANT AID/DSAN-XII-G-0121)

AT
SOUTH DAKOTA STATE UNIVERSITY

Submitted to the
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by
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I. INTRODUCTION

On 31 December 1986, South Dakota State University (SDSU) completed its institutional strengthening activities under a Title XII Strengthening Grant from the Agency for International Development (AID). The grant and activities were the results of a contract signed between AID and SDSU in July 1979. This final Strengthening Grant report documents accomplishments under that grant and briefly presents forward plans under the Matching Support Grant (MSG) program.

The purpose of the Title XII Strengthening Grant program was to provide resources for institutional strengthening which would enable SDSU to become involved with AID in international development work in Less Developed Countries (LDCs). The Strengthening Grant program was a matching grant which provided up to \$100,000 per year which was to be matched on a one-to-one basis by the University with non-federal funds. Over the course of the grant, \$485,944 in Title XII grant monies were expended; these were matched by \$621,615 in non-federal university funds.

Three major, long-range goals were encompassed in SDSU's Title XII Strengthening Grant program: (1) to strengthen administrative leadership to emphasize international activities which would enable the university to better serve in technical assistance capacities in less developed countries; (2) to initiate ongoing programs of staff development to increase interest in and ability to serve in phases of international agriculture, nutrition, and rural development; and

(3) to strengthen and enrich curricula to help prepare staff, graduate students, and undergraduates to better fulfill opportunities and responsibilities in LDCs. Five functional areas, in association with these three goals, were identified and received attention in strengthening activities during the course of the grant. These were International Programs Administration, Dryland Agriculture, Remote Sensing, Rural Development, and Human Nutrition.

The organization of this final Strengthening Grant report is as follows: activities and expenditures concluding the Strengthening Grant extension period (1 July - 31 December 1986) are presented and discussed; this is followed by a summary and discussion of accomplishments over the entire Strengthening Grant period at SDSU; forward plans under the MSG program conclude this report. Attached as an appendix is a copy of SDSU's last participation report to BIFAD and a short description of a Remote Sensing project completed in Gambia during 1986. Both of these documents reflect SDSU's overseas involvement in AID, Title XII-related development activities.

II. CONCLUSION OF FY6 EXTENSION OF THE STRENGTHENING GRANT

In this section of the report, activities which took place during the FY6 Extension period of the Strengthening Grant (1 July - 31 December 1986) are presented. Since a narrative activity report for this period was included in the Seventh Annual Report, submitted to AID in December 1986, only a brief summary of those activities will be given here. This section concludes with a final accounting of expenditures during this period.

A. Summary of Activities

1. International Programs Administration. Relatively few new activities took place in this, as well as other focal areas, of the grant during the concluding extension period. Nine activities summarized here are those which cut across the other focal areas. Briefly, these included travel by Dr. Duane Everett, International Programs Director at SDSU, to the AUSUDIAP meeting in Fort Collins, Colorado, in July 1986. This meeting was deemed particularly important as SDSU looks to the future and continued involvement in the international arena and with AID development work. Thus, one of the important purposes of this activity was to nurture cooperative linkages with other institutions for purposes of collaborative technical assistance activities overseas.

During the extension period, central library holdings continued to be augmented as core faculty from Dryland Agriculture, Remote

Sensing, Rural Development, and Human Nutrition continued to submit requests for important LDC works in their respective areas.

Similarly, several special LDC training materials (papers, pamphlets, and audiovisuals) were also acquired to support the work of core staff, both in research and in teaching.

Foreign language training for core staff continued to receive attention during the concluding period of the grant. In July, a core staff from the Department of Animal and Range Sciences participated in an Intensive French Training Seminar in Gainesville, Florida. Then, during the fall term (September - December 1986), arrangements were made on this campus for continued French tutoring for the three core staff who had participated in the intensive summer seminar and for several other core staff who were interested in further developing their French language skills.

In terms of international programs communication, an issue of the International Programs Bulletin was published during the fall of 1986. This publication has served as an excellent vehicle for informing the campus community, and to a lesser extent the surrounding community, about SDSU's involvement in international development activities.

Several faculty strengthening activities through seminar/symposium participation also took place during the concluding period of the Strengthening Grant. Five core staff (representing the Plant Science Department, Agricultural Economics, and Agricultural Communications) traveled to Kansas State University to participate in the annual Farming Systems Research Symposium.

Five core faculty also traveled to and participated in the Third World Studies Conference in Omaha, Nebraska, where they presented papers and further strengthened their own awareness of LDC concerns. Finally, in support of the Latin American Studies Program on this campus and interest in development issues in Latin America, three core faculty attended the Latin American Studies Association Conference in Boston.

2. Dryland Agriculture. No new activities took place in this focal area during the FY6 Extension period. As noted above, however, core staff from this area did engage in further strengthening through participation in the annual Farming Systems Research Symposium.

3. Remote Sensing. Only one new activity took place in this focal area during the closing period of the grant. Two core staff, who have been most active here as well as overseas in Title XII activities, traveled to the Twentieth International Symposium on Remote Sensing of the Environment in Nairobi, Kenya, where they presented papers based upon contract work that they had done with AID and Strengthening Grant research. The formal interaction with other professionals working in the Remote Sensing area further contributed to the strengthening of these core staff as well as affording them the opportunity to diffuse their findings and experiences to others. This travel was also regarded as supportive of anticipated AID overseas contract work by these individuals.

4. Rural Development. No new activities occurred in this focal area during the FY6 Extension period. It should be noted, however, that among those who traveled to the domestic workshops and symposia discussed earlier were core faculty who have been active in this focal area.

5. Human Nutrition. No new activities took place in this focal area during the FY6 Extension period.

TABLE B, 1. MATCH AND GRANT EXPENDITURES FOR INTERNATIONAL PROGRAMS ADMINISTRATION COMPONENT FOR EXTENSION PERIOD, SIXTH FY, COVERING 1 JULY 1986 - 31 DECEMBER 1986.

	SDSU Match (\$)	USAID Grant (\$)	Total (\$)
<u>A. Strengthening Grant coordination</u>			
Strengthening Grant coordinator salary	5,886	---	5,886
Part-time secretary for coordinator	1,015	2,500	3,515
Office expenses (phone, supplies, xeroxing, etc.) of coordinator	78	---	78
TOTAL OF A	6,979	2,500	9,479
<u>B. Administrative travel</u>			
Travel of International Programs Officer to AUSUDIAP meeting in Ft. Collins, Colorado, July 1986	---	594	594
<u>C. Central library holdings related to LDC agriculture, rural development, human nutrition, remote sensing, and foreign language training</u>	1,518	1,325	2,843
<u>D. Special LDC training materials</u>	---	219	219
<u>E. Foreign language training</u>			
One-half of travel for one person to Intensive French Training Seminar, Gainesville, Florida, June-July 1986	---	323	323
Salary and materials for instruction in French class	448	1,003	1,451
TOTAL OF E	448	1,326	1,774
<u>F. International Programs Information</u>			
Labor and supplies to publish International Programs Bulletin	---	237	237
<u>G. Professional travel of two Plant Science, two Agricultural Economics, and one Agricultural Communications faculty members to attend Farming Systems Research Symposium at Kansas State University</u>	1,850	1,380	3,230

TABLE B, 1. CONTINUED

	SDSU Match (\$)	USAID Grant (\$)	Total (\$)
H. <u>Latin America Area Studies</u> <u>Program activities</u>			
Third World Studies Conference in Omaha, Nebraska, travel expenses for five faculty members	200	786	986
LASA Studies Conference in Boston, travel expenses for three faculty members	621	1,841	2,462
TOTAL OF H	821	2,627	3,448
TABLE B, 1 TOTALS	11,616	10,208	21,824

TABLE B, 2. MATCH AND GRANT EXPENDITURES FOR DRYLAND AGRICULTURE
COMPONENT FOR EXTENSION PERIOD, SIXTH FY, COVERING
1 JULY 1986 - 31 DECEMBER 1986.

	SDSU Match (\$)	USAID Grant (\$)	Total (\$)
	0	0	0
TABLE B, 2 TOTALS	0	0	0

TABLE B, 3. MATCH AND GRANT EXPENDITURES FOR REMOTE SENSING
 COMPONENT FOR EXTENSION PERIOD, SIXTH FY, COVERING
 1 JULY 1986 - 31 DECEMBER 1986.

	SDSU Match (\$)	USAID Grant (\$)	Total (\$)
A. <u>Remote Sensing/Nairobi, Kenya</u> <u>Remote Sensing Symposium, travel</u> <u>for two faculty members</u>	5,162	6,556	11,718
TABLE B, 3 TOTALS	5,162	6,556	11,718

TABLE B, 4. MATCH AND GRANT EXPENDITURES FOR RURAL DEVELOPMENT
COMPONENT FOR EXTENSION PERIOD, SIXTH FY, COVERING
1 JULY 1986 - 31 DECEMBER 1986.

	SDSU Match (\$)	USAID Grant (\$)	Total (\$)
	0	0	0
TABLE B, 4 TOTALS	0	0	0

TABLE B, 5. MATCH AND GRANT EXPENDITURES FOR HUMAN NUTRITION
COMPONENT FOR EXTENSION PERIOD, SIXTH FY, COVERING
1 JULY 1986 - 31 DECEMBER 1986.

	SDSU Match (\$)	USAID Grant (\$)	Total (\$)
	0	0	0
TABLE B, 5 TOTALS:	0	0	0

TABLE B, 6. TOTAL MATCH AND GRANT EXPENDITURES FOR EXTENSION PERIOD, SIXTH FY, COVERING 1 JULY 1986 - 31 DECEMBER 1986.

	SDSU Match (\$)	USAID Grant (\$)	Total (\$)
International Programs Administration	11,616	10,208	21,824
Focal Area I: Dryland Agriculture	0	0	0
Focal Area II: Remote Sensing	5,162	6,556	11,718
Focal Area III: Rural Development	0	0	0
Focal Area IV: Human Nutrition	0	0	0
TOTALS FOR EXTENSION PERIOD, SIXTH FY	16,778	16,764	33,542

III. ACCOMPLISHMENTS UNDER THE TITLE XII STRENGTHENING GRANT

In this section of the report, Strengthening Grant accomplishments over the course of the grant (July 1979 - December 1986) are summarized by focal areas in narrative fashion. That summary is concluded with flow charts displaying accomplishments also broken down by focal areas.

A. Narrative of Accomplishments

1. International Programs Administration

Consistent with the stated objective for International Programs Administration, SDSU now has in place several offices and committees which interface with one another in providing direction and coordination for university international programming and Title XII-related activities. These include: the Office of the Director for International Programs who is also the Title XII Officer for SDSU, the Title XII Strengthening Grant (to become the Matching Support Grant) Office which includes the Coordinator of the Grant and a part-time secretary-bookkeeper, and the Office of the Foreign Student Advisor. Overall fiscal accounting is provided by the Office of Grants Administration. In addition to these specific offices, university committees with international programs administration responsibilities and linkages include: an Advisory Board which was established to oversee the Title XII program at SDSU

and which consists of the Vice-President for Administration, the Deans of the colleges of Agriculture and Biological Sciences, Arts and Sciences, Engineering, and Home Economics, the Director of the Office of Remote Sensing, Engineering, and Environmental Research, and the Director of International Programs; a Commission on Internationalization of Education at SDSU which has the duty of promoting the internationalization of education at SDSU through such things as encouraging an international focus in courses and sponsoring special events to expand awareness of international concerns and which is composed of faculty, student, extension, and administration representatives; and an International Student Relations Committee which addresses the needs of international students at SDSU and promotes interpersonal relations between the international student body, the university community, and the surrounding community and which is composed of faculty, student, administration, community, and campus ministries representatives.

It is significant and indicative of SDSU's commitment to international programming and administration that recent waves of budget cutting, prompted by fiscal problems in part related to the agricultural economy, initially targeted cuts to be made in both the Office of the Director of International Programs and the Foreign Student Advisor. These targeted cuts, however, were rescinded and both positions are now filled and actively involved in International Programs Administration at SDSU.

Also coming under the general heading of International Programs Administration are several activities which cut across focal areas

of the university. These activities include the semi-annual publication and dissemination of the International Programs Bulletin; foreign language training for core faculty and staff; central library acquisitions in support of the Title XII focal areas and overseas development activities; acquisition of special LDC training materials; and coordination of on- and off-campus seminars and symposia with an LDC, Title XII focus.

Briefly, accomplishments in these areas include nine classes (over the six and one-half year period of the grant) made available to core faculty/staff in selected foreign languages (French, Spanish, and Arabic) to develop language skills for overseas technical assistance work. Seventy-nine participants took part in these classes, many of them enrolling repeatedly in the classes to further develop their language skills. In addition to these nine on-campus classes, three faculty from the College of Agriculture and Biological Sciences attended a month-long intensive French program for agriculturalists held on the campus of the University of Florida.

In support of this language effort, special attention was given to the acquisition of technical French language journals of relevance to agriculture in francophone Africa by the university library. In addition, numerous other periodicals as well as monographs have been acquired by the university library over the course of the Strengthening Grant to provide support for faculty strengthening, research, and curriculum enrichment. While the library's current acquisitions procedures and reporting make it

impractical to generate the list of titles specifically purchased with the grant and their numbers, a review of estimates from the annual reports submitted to this office by the university library suggest an estimate of approximately 1,100 volumes (monographic literature).

In further support of faculty development and institutional strengthening, special LDC training and educational materials have been acquired. These include papers and other publications, generally not of the kind acquired by the university library, and audio-visual materials such as language tapes and slide-tape sets on hunger and other development issues. Over the course of the Strengthening Grant, 667 publications and 28 audio-visual sets were acquired and are now in use by faculty, staff, and students. These materials have been made available through the Title XII grant office on campus. Added to this collection are also SDSU-faculty produced materials, such as a slide-tape set on women in agriculture in the Midwest and the Third World. This particular set has been in demand both on campus and with community groups off campus.

During the course of the Strengthening Grant, SDSU faculty and staff have attended numerous on- and off-campus seminars and symposia with an LDC, Title XII focus. Among the off-campus programs in which SDSU faculty/staff have participated regularly are the Farming Systems Symposia, the Third World Conference, and the annual meeting of the Association for Women in Development. On-campus seminars included development symposia held in conjunction with the annual International Day. Those symposia have focused on

international agriculture, technology transfer, women in development, and this year, on international research and technology transfer. The latter symposia provided a review and forward look at SDSU's involvement in international development work via presentations by core faculty/staff who have participated in strengthening activities as well as overseas technical assistance activities.

Another general university area that received attention under the Strengthening Grant was that of the curriculum. In keeping with the third major, long-range goal of the Strengthening Grant (to strengthen and enrich curricula to help prepare staff, graduate students, and undergraduates to better fulfill opportunities and responsibilities in LDCs), new courses were developed and existing courses were revised to include a focus on LDC issues and concerns. A total of 38 courses were either developed or revised in this manner during the period of the Strengthening Grant. Most of those courses (at least 32) continued to be taught on a regular basis, reaching more than 1,000 students each year. As a further result of the research and effort that faculty put into this curriculum development activity, several bibliographies and collections of readings and one text were compiled and now are available to others through the Title XII grant office.

Research activities on concerns and problems of direct relevance to LDCs were also carried out under the auspices of the Strengthening Grant. Specific research activities will be discussed in relation to focal areas. However, of the 31 research projects

carried out during the course of the six and one-half years of the Strengthening Grant, there were many that were inter-disciplinary in nature. Further, very few of the research activities were individual activities--most involved a team effort, often with faculty, staff, and graduate students from LDCs.

Faculty development and strengthening for technical assistance in LDCs also took the form of overseas travel for 26 faculty and staff during the course of the Strengthening Grant. Some of these made their first trips to LDCs under the grant while others traveled in an effort to update their understanding of current concerns in development work and LDCs. In many cases, the overseas travel was associated with LDC research and with short-term technical assistance. The appendix to this document details short- and long-term technical assistance by SDSU faculty/staff to overseas AID projects.

Finally, under the general heading of International Program Administration, it can be observed that 88 university faculty/staff were identified as core staff at the conclusion of the grant. Most of those identified as core staff were self-designated individuals who had expressed an interest and a willingness to be involved in LDC development activities. Five colleges of the university were represented by core staff--Agriculture and Biological Sciences, Arts and Sciences, Engineering, Home Economics, and Nursing. Faculty on the core staff were drawn from 15 departments within the university. In addition, there were representatives of the University Administration, Cooperative Extension, Briggs Library, the

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Agricultural Experiment Station, and the Office of Remote Sensing, Engineering, and Environmental Research.

2. Dryland Agriculture

Forty-four faculty and staff, representing ten different departments and units relevant to Dryland Agriculture, were identified among the Title XII core staff. Consistent with the objectives of developing faculty awareness and institutional capacity in this focal area, all of these individuals participated in various Title XII seminars and activities concerned with Dryland Agriculture in LDCs. On-campus symposia in this area included the Theodore Schultz Symposium (FY2); a staff-graduate student seminar on "Some Problems Associated With Parasites of Livestock in Southern Africa" (FY2); two seminars open to the university faculty, staff and students on "Integrated Area Development in LDCs" and "The Effects of the Green Revolution on an Indian Village" (both FY3); and a university seminar on "Lessons Learned From Indonesia in Integrated Area Development" (FY4). Off-campus symposia and seminars involving these core staff included the annual Farming Systems Symposium, a Symposium on Forestry in Development, the Third World Conference, and an International Symposium on Windbreak Technology.

Thirteen faculty, staff, and graduate students (the latter primarily from LDCs) carried out a total of five research projects with an LDC focus in the area of Dryland Agriculture during the course of the Strengthening Grant. Those activities contributed to

staff development and institutional strengthening in several ways. One accomplishment of this research was the establishment of a linkage with an international research center, the International Livestock Center for Africa (ILCA). The research activities also provided SDSU faculty and staff with an opportunity to extend their technical knowledge and skills to development needs in LDCs. Among the research activities carried out in the focal area of Dryland Agriculture were: cooperative research with ILCA on pasture improvement (FY 1-3); biomass fuels research (FY3); drought research and nitrogen fixation under drought conditions (FY 4-6); and research on plant "damping off" (FY 4-6). In conjunction with some of the research activities, faculty and staff traveled overseas and thus gained first-hand experience in LDC contexts. A total of 11 international trips were made by faculty and staff identified with the focal area of Dryland Agriculture. The cooperative research of several faculty/staff with graduate students from LDCs also provided SDSU faculty/staff experience in working with LDC personnel. Finally, the outcomes of these research activities were disseminated via numerous publications, reports, and seminar presentations.

Additional strengthening in the area of Dryland Agriculture also included the development and refocusing of courses in this area to include an LDC focus. Fifteen courses of relevance to this focal area were thus created or revised and continue to be taught, reaching hundreds of students each year. In support of this curriculum development as well as research in Dryland Agriculture,

the herbarium in the Biology Department was strengthened with the addition of species from grasslands of eastern and southern Africa. The African collection in the herbarium now includes over 2,000 specimens and is widely used in seminars, classes, guest lectures, and other talks. Similarly, based upon research carried out under the Strengthening Grant and supportive of both further research and curriculum offerings, a slide-cassette program on "Range Integrated Pest Management" with a focus on southern Africa was also developed and is available for use.

3. Remote Sensing

Seven faculty/staff drawn from the now reorganized Office of Remote Sensing, Engineering, and Environmental Research (formerly the Remote Sensing Institute was a distinct entity on the SDSU campus) form the core staff for the focal area of Remote Sensing. Activities carried out in relation to this focal area have also included faculty and staff from other departments and units within the university--especially the departments of Animal and Range Science, Rural Sociology, and Economics. Consistent with the objective of improving skills in remote sensing techniques for development work, three seminars and two more advanced short-courses have been offered by remote sensing staff to core staff from other areas with the potential to use remote sensing technology in their work. A total of 60 faculty and staff took advantage of these opportunities for technical strengthening. In addition two new courses have been developed and made available to undergraduate and

graduate students to acquaint them with remote sensing techniques and their applications in LDCs.

Several research activities have been carried out in the focal area of Remote Sensing with an LDC focus. Many of these research activities have been cooperative ventures involving faculty, staff, and graduate students from other units of the university. A total of ten research activities related to this focal area and involved 22 individuals (many of them, particularly from the remote sensing staff, being involved in more than one research project over the course of the Strengthening Grant). Research activities included the development of training materials, including French language materials for use in francophone Africa; a women in development (WID) project involving application of remote sensing imagery to areas of southern Africa where women are heavily involved in agriculture due to male out-migration; mapping and resource assessments with Landsat multidata for various areas of Africa; and research on the monitoring of desertification with remote sensing data. These activities have not only strengthened the skills of remote sensing staff for technical assistance in LDCs, but have also contributed to the development of new skills for other faculty/staff. In addition, several symposia presentations were made to international gatherings of scientists and others based upon these research activities, including a presentation at an AWID conference and presentations at the Twentieth International Symposium on Remote Sensing of the Environment.

4. Rural Development

Thirty faculty and staff, representing nine departments and units in the university, were identified as members of the core staff with interests and expertise in the area of Rural Development. During the period of the Strengthening Grant, these individuals participated in six seminars or symposia, most of them on campus and many of them which these core staff organized, of relevance to Rural Development in LDCs. Records indicate that approximately 960 individuals--faculty, staff, graduate students, and undergraduates, as well as community members--attended those six seminars and symposia.

In addition, a total of 18 courses were developed or revised to include an LDC focus on rural development. Estimates from records indicate that approximately 615 graduate students and undergraduates enrolled in these courses the first time that they were offered. Since most of these courses continue to be taught on a regular basis, the exposure that students on this campus now have to international issues, including development issues, is many times that original count.

Contributing to faculty and staff development for purposes of strengthening for technical assistance in LDCs, 20 of the core staff in this area traveled domestically to national and regional conferences and symposia that focused on development issues in LDCs. Included here was travel to and participation in the meetings of the Association of Women in Development (AWID), the Third World

Conference, the Latin American Studies Conference, the Farming Systems symposia, and others.

Finally, institutional and faculty/staff strengthening also took the form of research activities with an LDC focus. Thirteen separate research activities were carried out (not including those already discussed in the focal area of Remote Sensing in which Rural Development core faculty also participated), with 44 faculty, staff, and graduate students directly involved. Among the research activities of relevance to Rural Development were: research on rural development in Latin America, including the preparation of a bibliography now available for use by core staff and students (FY1); review of literature and compilation of a bibliography on Third World Women and Development (FY1); cartographic research resulting in the preparation of "World Information: Factsheets, Maps, and Classroom Exercises" (FY2); acquisition of data file census tape on Women in Development from the Bureau of the Census and its use in faculty and student comparative research projects on the status of women (FY3 and FY4); development of an international planning option in the Rural Sociology Department (FY5); research on the politics of development in Latin America, resulting in a course and a bibliography now available for use by core staff and students (FY5); and research on women, development, and nutrition in Nigeria, a cooperative project involving a graduate student from Ethiopia and faculty from Rural Sociology and Nutrition departments (FY6). As noted earlier, many of these research activities were cooperative in

nature, involving faculty and staff from various disciplines as well as faculty and graduate students (many of the latter from LDCs).

5. Human Nutrition

Activity in this focal area was greatest in the earlier years of the Strengthening Grant. Nonetheless, at the grant's conclusion, twelve faculty and staff, representing six departments and units in the university, were identified as members of the core staff with interests and expertise in the area of Human Nutrition. These core staff played a significant role in stimulating concern and interest among faculty, students, and community members with regard to issues of hunger and malnutrition in LDCs through organizing and presenting symposia and through the refocusing of a course, "Food and Man," which reaches approximately 500 students each year.

A total of 17 seminars and symposia were organized and presented in the area of Human Nutrition, most of them occurring during the first three years of the Strengthening Grant. There were two seminar series, each consisting of six sessions, that were university-wide in audience and which served to alert faculty, staff, and students to issues of food, hunger, and agriculture in LDCs. These two series occurred during the first two years of the grant, and attracted a participation of about 50 faculty, staff, and students at each session. There was, and continues, an annual "Nutrition in Action" symposium, which approximately 1,500 attend each year. This annual symposium most often included a segment related to nutrition in LDCs. Finally, SDSU has participated in the

annual World Food Day Teleconference. Each year, six to eight faculty and staff have served on a local panel, discussing world food issues with other faculty, staff, students, and community members.

Three research projects have been carried out by core staff in this focal area, dealing with aspects of diet assessment and improving low-cost human diets. Some of this research has taken place in southern Africa, and others of it has taken place here in South Dakota on Indian reservations which, in some respects, share conditions with LDCs.

In addition to international travel for research and consulting activities which also contributed to faculty development, members of the core staff in this area have also traveled to and participated in domestic seminars, conferences, and workshops focusing on human nutrition in LDCs. Included here was travel to and presentation of papers at the Third World Conference and the Latin American Studies Conference.

Area of Strengthening I. INTERNATIONAL PROGRAMS ADMINISTRATION	FY 1	FY 2	FY 3	FY 4	FY 5	FY 6	Extension FY 6	TOTAL
A. Seminars on Campus	10 - 100*	3 - 200	1 Technology Transfer - 15 3 - 400	-	-	-	-	17 - 715
B. Library Holdings	226	185	213	200	99	95	40	1,058
C. International Travel	-	2	-	-	-	-	-	2
D. Domestic Travel	1	2	3	5	4	-	-	19
E. LDC Training Materials	32	63	65	140	203	200	25	667
F. Funds								
Match	42,817	25,656	35,271	43,691	24,509	36,187	14,116	222,247
Grant	16,435	10,034	20,559	27,367	17,914	21,421	7,708	121,438
G. Core Staff and Faculty	-	-	46	81	83	83	88	-
H. Language Training	2 - 14*	1 - 17	1 - 17	2 - 18	2 - 4	-	1 - 9	9 - 79

Note: * = First number is the number of seminars or courses. Second number is the estimated number of participants.

Area of Strengthening	FY 1	FY 2	FY 3	FY 4	FY 5	FY 6	Extension FY 6	TOTAL
II. DRYLAND AGRICULTURE								
A. Seminars	-	2 - 1,050	2 - 120	1 - 50	-	-	-	5 - 1,220
B. Courses Classes & Enrollment	6 - 635*	6 - 73	3 - 45	-	-	-	-	15 - 753
C. International Travel	4	2	2	1	2	-	-	11
D. Domestic Travel	10	1	7	6	2	6	5	37
E. Research - LDC Focus	2 - 5 (Approx.)	1 - 2 (Approx.)	3 - 6 (Approx.)	2 - 6	2 - 6	2 - 5	-	5 - 13**
F. Funds								
Match	33,546	37,996	28,458	22,907	20,979	24,277	-	166,163
Grant	15,668	19,029	24,474	21,748	23,019	13,350	-	117,288

Note: * = Courses are only counted in the first year of strengthening even though they may continue to be offered.
 ** = Some projects were multi-year projects, therefore total reflects total number of research projects.

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Area of Strengthening	FY 1	FY 2	FY 3	FY 4	FY 5	FY 6	Extension FY 6	TOTAL
III. REMOTE SENSING								
A. Seminars and Workshops	1 - 16	-	1 - 20	1 - 20	-	-	-	3 - 56
B. Courses Classes & Enrollment	1 - 29	1 - 46	-	1 - 2	1 - 2	-	-	4 - 79
C. International Travel	-	3	-	2	2	-	2	9
D. Domestic Travel	2	-	-	-	1	1	-	4
E. Research - LDC Focus	1 - 4	1 - 4	2 - 5	3 - 7	2 - 6	5 - 10	-	10 - 22
F. Funds								
Match	9,029	10,659	22,964	19,585	22,357	31,319	5,162	121,075
Grant	29,776	10,145	19,912	26,825	23,765	34,132	6,556	151,111

Area of Strengthening		FY 1	FY 2	FY 3	FY 4	FY 5	FY 6	Extension FY 6	TOTAL
IV. RURAL DEVELOPMENT									
A.	Seminars	1 - 300	-	2 - 46	3 - 620	-	-	-	6 - 966
B.	Courses Classes & Enrollment	4 - 220	2 - 20	5 - 125	1 - 50	4 - 170	2 - 30	-	18 - 615
C.	International Travel	1	-	-	-	-	-	-	1
D.	Domestic travel	1	5	6	4	4	-	-	20
E.	Research - LDC Focus	2 - 7 (Approx)	3 - 8 (Approx)	3 - 6 (Approx)	1 - 10 (Approx)	2 - 6 (Approx)	3 - 5 (Approx)	-	13 - 44
F.	Match	19,488	20,811	7,124	5,180	18,165	11,556	-	82,324
	Grant	18,273	18,463	2,388	8,937	18,332	11,595	-	77,988

26

Area of Strengthening	FY 1	FY 2	FY 3	FY 4	FY 5	FY 6	Extension FY 6	TOTAL
V. HUMAN NUTRITION								
A. Seminars	7 - 4,500	6 - 225	1 - 1,500	-	1 - 8	1 - 6	1 - 8	17 - 6,247
B. Courses Classes & Enrollment	1 - 500	-	-	-	-	-	-	1 - 500 (annually)
C. International Travel	1	-	1	1	-	-	-	3
D. Domestic Travel	1	1	-	-	-	-	-	2
E. Research - LDC Focus	1 - 3 (Approx)	2 - 20 (Approx)	-	1 - 2 (Approx)	-	-	-	3 - 25 (Approx)
F. Funds								
Match	12,538	10,583	4,126	3,059	-	-	-	30,306
Grant	7,324	3,380	2,543	2,372	-	-	-	15,619

Total Strengthening Grant Effort FOCAL AREAS I - V	FY 1	FY 2	FY 3	FY 4	FY 5	FY 6	Extension FY 6	TOTAL
A. Seminars	19 - 4,916	11 - 1,475	10 - 2,101	5 - 690	1 - 8	1 - 6	1 - 8	48 - 9,204
B. Courses Classes & Enrollment	12 - 1,384	9 - 1,275	8 - 170	2 - 52	5 - 172	2 - 30	-	38 - 1,974
C. International Travel	6	7	3	4	4	-	2	26
D. Domestic Travel	15	9	16	15	11	11	5	82
E. Research - LDC Focus	6 - 19 (Approx)	7 - 34 (Approx)	8 - 17 (Approx)	7 - 25 (Approx)	6 - 18 (Approx)	10 - 20 (Approx)	-	31 - 104
F. Funds Match	117,418	105,705	97,943	94,422	86,010	103,339	19,278	624,115
F. Funds Grant	87,476	61,051	69,876	87,249	83,030	80,498	14,264	483,444
G. Language Training	2 - 14	1 - 17	1 -	2 - 18	2 - 4	-	1 - 9	9 - 79
H. LDC Training Materials	32	63	65	140	203	139	25	667
I. Core Faculty	-	-	46	81	83	83	88	-
J. Library Holdings	226	185	213	200	99	95	40	1,058

FY 1
STRENGTHENING GRANT ACCOMPLISHMENTS
IN RELATION TO FOCAL AREAS

- I. International Programs Administration
- A. Appointment of Director of International Programs/Title XII Office and Coordinator for Strengthening Grant I. 3*
 - B. Augmentation of 226 books and monographs for Central Library LDC holdings II. 4
 - C. Foreign Language Training - Survey of faculty and graduate student interest and needs; preparation of special language courses in French and Spanish
 - French - 8 faculty, staff members and spouses enrolled
 - Spanish - 6 faculty, staff members and spouses enrolled II. 5
 - D. International Programs Information - newsletter-bulletin on international programs and Title XII concerns initiated I. 9
 - E. Seminars:
 - Ag-Bio seminars by faculty returning from Botswana
 - Monthly "sack lunch" forums on structure of agriculture issues in U.S. and LDCs
 - Six monthly seminars on food and agriculture problems in LDCs I. 9-10
- II. Dryland Agriculture
- A. Recruitment and hiring of full professor in Economics with extensive agricultural development experience in the Middle East and Asia I. 11
 - B. Cooperative research and training project initiated with the International Livestock Center for Africa (ILCA) I. 12
 - C. Courses:
 - New course in World Crop and Soil Resources I. 13
 - Refocused course in Soil Conservation - 36 Students II. 10
 - Introductory Soils refocused - 144 students attended II. 10
 - World Biogeography - 10 students II. 12
 - Plant Taxonomy - 20 students II. 12
 - Economic Botany - 11 students II. 12
 - D. Herbarium strengthening - species from grasslands of eastern and southern Africa--initiated I. 14
 - E. International Travel - 4 I. 15
- III. Remote Sensing
- A. Development & application of remote sensing training exercise Phases 1 & 2 completed I. 16
 - B. 16 faculty and Graduate Students attend remote sensing workshop July 14-25, 1980. I. 17
 - C. Geography staff member-special training at EROS Data Center I. 17
 - D. Equipment Upgrading (for Workshop) I. 18

- E. Courses:
 Geography 484 (Undergraduate Remote Sensing) I. 17
 Revised Introductory Remote Sensing - 29 Students enrolled II. 18
- IV. Rural Development
- A. Courses:
 Graduate Student from India Assisted in teaching
 Geography Classes II. 19
 Introduction to Sociology Refocused and Updated - 150
 students II. 20
 Release time provided to Political Science Professor II. 26
 New course in Regional Geography; Intercultural Issues:
 Problems in Developing Countries - 10 upper level students
 attended II. 19
 Revised and reinstated course on Race and Nationality
 Problems - 30 students II. 20
 Refocused Urban Sociology Course - 30 students II. 20
- B. Symposium on Knowledge Transfer Across Cultures:
 University-wide symposium, April 9-10, 1981 - Approximately
 100 faculty, staff members and students attended keynote
 by Drs. John and Ruth Hill Useem. Approximately 20-50
 faculty, staff members and students attended and
 participated in each of six small group discussions.
 Approximately 150 faculty, staff members and students
 attended concluding luncheon and panel discussion.
 16 individuals representing 6 colleges served as steering
 committee. II. 20
- C. Cartographic outreach service (Geography) I. 20
- D. Purchase of video-tape material relevant to Latin American
 LDC conditions and development of bibliography of Latin
 American resource materials I. 21
- E. Third World Women and Development literature reviewed
 and bibliography prepared II. 24-25
- V. Human Nutrition
- A. University-wide seminar series on food and agriculture
 in LDCs (monthly) - 50-60 participants at each of six
 seminars II. 27
- B. "Nutrition in Action" Symposium, February 1981,
 Approximately 1,500 attended. II. 28
- C. SDSU Extension Nutrition Specialist to conference at
 University of Illinois on "Food Problems in Africa" II. 29
- D. Courses:
 Revised Food & Man course - more than 500 students II. 28
- E. Nutrition and Food Science Department Head to Botswana
 Summer 1981 II. 29
- F. Work with American Indians & low income nutrition II. 30

*Roman numeral indicates year of annual report and number
 refers to the page.

FY 2
STRENGTHENING GRANT ACCOMPLISHMENTS
IN RELATION TO FOCAL AREAS

- I. International Programs Administration
- A. International Travel - 3 II. 3
 - B. Foreign Language Training - audio-visual materials and pedagogical materials for intensive instruction in practical French and Spanish. Informal Arabic Course - 15-20 undergraduate and graduate and one faculty III. 7
 - C. Seminars:
 - Organized by individual Departments.
 - Main cross college lines in Nutrition and Food Science Arvonne Fraser - 100 people, faculty, staff, graduate and undergraduate, and community people. 40-50 attended sessions on development in Latin America and Middle East I. 7
 - D. Library Holdings - 185 books and monographs were purchased III. 10
 - E. Special LDC training materials - slide-tape set on hunger in Bangladesh, India & Mexico and Farming Systems Research Bibliography II. 7
 - F. International Student Survey III. 7
- II. Dryland Agriculture
- A. Plant Science Department research in cooperation with the International Livestock Center for Africa. Plant Science faculty visited ILCA in Ethiopia III. 9
 - B. Courses:
 - New course in Livestock Pest Management - 5 graduate students (3 of which are foreign) III. 13-14
 - LDC focus to Crop & Livestock Entomology II. 9-10
 - World Crop & Soil Resources repeated (only counted in FY 1) - 10 undergraduate and 2 graduate with 12 guest lecturers II. 9-10
 - Plant Ecology - 18 students - revised and refocused II. 10
 - Advanced Plant Ecology - revised and refocused II. 12
 - Agrostology - 16 students - revised and refocused II. 12
 - Economic Development - 5 graduate and 2 undergraduate II. 12
 - Plant Taxonomy - 25 students continued III. 13
 - Upper-division undergraduate course in Biogeography - 8 students III. 16
 - C. Seminars:
 - Theodore Schultz Symposium on human resource development - 1,000+ attended III. 16
 - "Some Problems Associated with Parasites of Livestock in Southern Africa" staff-graduate student seminar II. 12-13
 - International Students and Leadership Development Presentation by Economics staff member to the 1982 Annual North Central Teaching Symposium. 60 representatives of SDSU and North Central Region Land Grant Institutions. III. 15
- III. 17

D. Biology Professor made a return trip to Botswana & Kenya III. 15

III. Remote Sensing

A. Development & application of Remote Sensing Training Exercise II. 16

B. Courses: III. 23

 Refocused Geography Course continues to be offered

 Revising and teaching "The Earth's Landforms" - 46 students II. 18

C. 3 members of Remote Sensing traveled to the Fifteenth International Symposium on Remote Sensing of Environment in Cairo, Egypt III. 23

IV. Rural Development

A. Geography Department cartography outreach service-developed WORLD INFORMATION: FACTSHEETS, MAPS, AND CLASSROOM EXERCISES II. 23-24

B. Courses:

 Although only counted in FY 1, 1 or 2 sections of the Introduction to Sociology course are taught with LDC content each semester, about 300 students per semester Political Science - China & Asian Politics course - 10 students II. 19

 Social Stratification - Revised and Refocused II. 26

 Current World Problems III. 25

 Political Ideologies III. 29

 Middle East & Africa III. 29

C. "Third World Women & Development" led by Sociology professor active in Title XII activities and Womens Studies Committee - Research Strengthening II. 24

D. Latin American Area Studies (LAAS) Continues II. 25

V. Human Nutrition

A. Seminars:

 University-wide seminars continued II. 27

 Seminar course on Food and Agriculture in LDC II. 28

 Appropriate Technology 1 day Symposium. Approximately 100 attended. 3 speakers brought in. II. 30

B. Analytical Work on traditional Plains Indian Foods and low cost diets - approximately 15 students made direct contributions as SDSU dietetics majors in Indian Reservations Nutrition Education Programs II. 30

C. Courses:

 Food and Man continues II. 30

 Upper-division undergraduate & graduate level seminar - Food and Agriculture in LDCs - 19 graduate and senior students were enrolled or which 5 graduate students were foreign. (non-Title XII funds) III. 31

D. An individual technical training program for the University of Botswana (2 month)

FY 3
STRENGTHENING GRANT ACCOMPLISHMENTS
IN RELATION TO FOCAL AREAS

- | | | |
|-----|----------------------------------------------------------------------------------------------------------------------------------------------------------|------------|
| I. | International Programs Administration | |
| A. | 46 faculty and staff members identified as core staff | III. 2 |
| B. | Informal Arabic Course offered | III. 5 |
| C. | Seminars: | |
| | "Problems of Development in the Middle East" - Several hundred attended | III. 12 |
| | "The Superpowers & African Development" - Approximately 100 faculty, staff, and students attended | III. 12 |
| D. | SDSU Core faculty and staff attend 7 international development seminars and programs in the U.S. | IV. 22 |
| | 1 faculty member from Printing and Journalism to Midwest Regional Symposium on Development Communications in Third World | IV. 22 |
| E. | Women in Development concerns increased with Assistant Coordinator interest | IV. 7 |
| F. | Central Library Holdings - 104 monographs and 107 volumes purchased plus 2 new periodicals | IV. 8 |
| G. | Special LDC Training Materials including an audio-tape on "Kenya Women" | IV. 9 |
| H. | Courses: | |
| | 12 Core staff enrolled in intensive Spanish | IV. 9 |
| | 2 Core Staff enrolled in intensive French | IV. 9 |
| I. | Technology Transfer Institute started | IV. 10 |
| II. | Dryland Agriculture | |
| A. | Proceedings from Schultz Symposium published | III. 16 |
| B. | The ILCA project continues | IV. 26 |
| C. | Courses: | |
| | Plant Taxonomy continued with 25 students | IV. 29 |
| | Agrostology continued with 15 students | IV. 29 |
| | Plant Ecology continued with 25 students | IV. 29 |
| | Biogeography continued with 8 students | IV. 29 |
| | New course in Economic Botany | III. 16 |
| | Comparative Economics Systems - Undergraduate course offered | III. 16-17 |
| | Economics of the International Sector - an advanced undergraduate and graduate level course | III. 17 |
| | Integrated Pest Management Course continues to be taught | IV. 29 |
| | Range Integrated Pest Management slide-cassette program formed | IV. 27 |
| D. | Seminars: | |
| | Economics member gave seminar on "Integrated Area Development in LDCs" | IV. 31 |
| E. | 4 professors in Plant Science, Economics and Rural Sociology, Assistant Coordinator and graduate student to Farming Systems Research Symposium in Kansas | III. 15 |

F.	Project on Biomass Fuels by Economics Faculty member	III. 18
G.	Economics faculty member traveled to India for the purpose of updating	III. 19
	Same faculty-member gave a seminar on "The Effects of the Green Revolution on an Indian Village" - Approximately 60 attended	III. 20
	Same member visited ICRISAT on trip to India	III. 20
H.	1 Plant Science staff member to eastern Botswana	IV. 28
I.	Biology Department herbarium strengthening completed	IV. 29
	African collection over 2,000 specimens - used in over 25 seminars, guest lectures, and talks	IV. 29
J.	1 faculty from Horticulture/Forestry to Symposium on Forestry in Development work in Idaho	IV. 22
 III. Remote Sensing		
A.	Developing Remote Sensing training materials for non-U.S. areas with specific emphasis on Africa	III. 22
B.	Two training exercises completed. Address Remote Sensing applications to geology and hydrogeology in Sudan and Mauritania	III. 23
C.	"Basic Remote Sensing and Image Interpretation Workshop" - 20 maximum (core faculty and staff priority) 2 credits	IV. 37
 IV. Rural Development		
A.	Courses:	
	Revised courses in Rural Sociology continue	III. 25
	Sociology of Gender Roles - Revised and Refocused - 35 students	III. 25
	Political Ideologies - 17 undergraduate students enrolled	III. 29
	Current World problems - 31 students enrolled	III. 29
	Middle East and Africa - 15-30 students expected	III. 29
	Latin America at the Crossroads: Looking for Reality - 18 students	IV. 43
B.	Geography Outreach finished	III. 26
C.	Upper-division undergraduate and graduate level seminar was taught on Problems of Developing Countries in the Geography Department - Enrollment included several foreign students	III. 24
D.	Non-Title XII Funded Activities:	
	People-to-People Visit to China	III. 25
	Latin American Travel	III. 25
	One of a limited number of delegates from U.S. to attend the First International Conference on Teaching and Research Related to Women in Montreal	III. 25
	First Annual International Day - estimated 3,000 attended	IV. 15
E.	Doctoral Graduate Student in Rural Sociology involved in work in North Yemen	III. 27
	Student joined the Consortium for International Development team (CID) in North Yemen	IV. 40
G.	Data file Census tape from Bureau of the Census of Women in Development is being acquired by Rural Sociology and Title XII	III. 27

- H. Farming Systems Seminar with Frank Conklin - 40 Core faculty attended IV. 15
- I. 6 SDSU faculty and staff to Farming Systems Symposium in Kansas IV. 23
- V. Human Nutrition
 - A. Ethel Austin Martin Nutrition in Action Symposium - Economics Department member made a presentation on "An Economic Perspective on Food for a Starving World" Expect 1,500 (Non-Title XII funds) III. 31
 - B. Travel to Botswana by Department Head IV. 46
 - C. Food and Man Course continues with around 575 students each semester IV. 31

FY 4
STRENGTHENING GRANT ACCOMPLISHMENTS
IN RELATION TO FOCAL AREAS

- | | | |
|------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|-----------|
| I. International Programs Administration | | |
| A. | 79 faculty and staff identified to Core Staff list | IV. 3 |
| B. | Special LDC training materials - language tapes and Arabic support for a formal Arabic Course - 15 students (5 of which are Core Staff) | IV. 9-10 |
| C. | Technology Transfer Institute and Faculty Development Seminar with 12 faculty and staff attending Joint Sponsorship with Phelps-Stokes Foundation | IV. 11 |
| II. Dryland Agriculture | | |
| A. | 1 Plant Science member to Ethiopia (ILCA) | IV. 27 |
| B. | 5 attended Farming Systems Symposium in Kansas | IV. 28 |
| C. | Research:
Plant Science drought research and nitrogen with graduate student from India | IV. 33 |
| | Plant Science research with Sri Lankan graduate student | IV. 33-34 |
| D. | Seminars:
Lessons Learned from Indonesia in Integrated Area Development by the Economics Department | IV. 18 |
| III. Remote Sensing | | |
| A. | Some 11 Remote Sensing exercise modules for semi-arid Africa prepared | IV. 35 |
| B. | Texts translated from English to French | IV. 36 |
| C. | Two workshops presented in Dakar, Senegal | IV. 36 |
| D. | "Basic Remote Sensing & Image Interpretation" Remote Sensing Workshop - 20 maximum (core staff priority) 2 credits | IV. 37 |
| E. | 2 Animal and Range Science faculty (core) supported in more advanced Remote Sensing Course | IV. 37 |
| F. | Remote Sensing/Women in Development study on male out-migration | IV. 38 |
| IV. Rural Development | | |
| A. | Courses:
Political Science courses continued | IV. 43-44 |
| | Refocused Population Problems to include WID | IV. 42 |
| | Political Ideologies - 17 students enrolled - continued | IV. 44 |
| B. | Campus-wide use of WID Census Data Tape | IV. 42 |
| C. | 4 faculty and staff to first conference of AWID | IV. 42 |
| D. | Campus-community WID group started - 20 attended | IV. 42-43 |
| E. | WID symposium planned in conjunction with International Day - April, 1984 | IV. 43 |
| F. | Seminars:
Filipino anthropologist/bishop - The Poorest of the Poor in LDCs Seminar | IV. 21 |

- V. Human Nutrition
 - A. Food and Man course continues to be offered IV. 45
 - B. Planning a nutrition component to be added to the Technology Transfer Institute for Summer 1984 IV. 45
 - C. Development of Training Package for Low Cost Institutional Diets in LDCS IV. 46

FY 5
STRENGTHENING GRANT ACCOMPLISHMENTS
IN RELATION TO FOCAL AREAS

- | | | |
|------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|
| I. International Programs Administration | | |
| A. | 81 faculty and staff identified to Core Staff List | V. 3 |
| B. | Central Library holdings 99 (over 1,000 total) | VI. 21 |
| C. | Special LDC training materials - French and Arabic language tapes; Cultural Survival slide/cassette program; Women in Agriculture slide/tape; 183 publications | VI. 22 |
| D. | Foreign language training: | |
| | 1 attended BIFAD/AID Workshop for Language Training Coordinators | VI. 23 |
| | 2 foreign student faculty advisors attend ATESOL | V. 11 |
| | 2 core staff strengthened Spanish and 1 French | V. 11 |
| E. | International Programs Bulletin - 2 issues (2,200 copies) distributed | V. 13 |
| F. | Seminars: On campus | |
| | International Days (6 presentations) | V. 14 |
| | International Agriculture Day | VI. 25-26 |
| | Dr. Diane Kayongo-Male, Kenya guest lecturer | V. 14-15 |
| | Norman Kallemeyn, Policy Changes in China | VI. 28 |
| | Seminars: Off campus | |
| | 8 attended Third World Conference, Omaha, Nebraska | VI. 28 |
| | 1 attended LASA Conference in Albuquerque, New Mexico | VI. 29 |
| | 1 attended IACC Conference in St. Louis, Missouri | VI. 29 |
| II. Dryland Agriculture | | |
| A. | 2 attended Farming Systems Symposium in Kansas | V. 21 |
| B. | Plant Science drought research and nitrogen with graduate student from India continued | VI. 32 |
| | Plant Science research with Sri Lankan graduate student continued | V. 25 |
| C. | 2 core faculty traveled to Cameroon | VI. 33-35 |
| III. Remote Sensing | | |
| A. | Evaluate Landsat multidata in Somalia | V. 26 |
| B. | 2 Range Science faculty members attended short course in remote sensing | V. 27 |
| C. | Women in development study on out-migration data analysis and expanded objectives from FY 4 | VI. 37 |
| D. | 2 traveled to Botswana | VI. 39 |
| IV. Rural Development | | |
| A. | Courses: | |
| | Rural Sociology, Industrial Society (47 students) | VI. 40-41 |
| | Refocused Rural Community Planning to include LDC (7 graduate students, 2 undergraduate students) | VI. 41 |
| | Population Problems revised (40 students enrolled) | VI. 42 |
| | Revised Rural Sociology to include women in development in LDC (60 annual student enrollment) | VI. 40 |
| B. | Rocused graduate training in Rural Sociology Department by added "international Planning" option | VI. 42 |
| C. | 4 faculty and staff attended AWID Conference | VI. 29, 43 |

- D. Latin American Politics course development commenced VI. 44
Latin American Societies course developed and
taught (18 students, 1 audit enrolled)
- V. Human Nutrition
 - A. Refocused course, Food and Man, continued to be
taught (500-600 annual student enrollment) V. 40
 - B. Ethel Austin Martin Nutrition in Action Symposium VI. 45
 - C. 8 faculty took part in World Food Day Teleconference VI. 46

FY 6
STRENGTHENING GRANT ACCOMPLISHMENTS
IN RELATION TO FOCAL AREAS

- I. International Programs Administration
- A. 83 faculty and staff identified to Core Staff List VII. 3
 - B. Central Library holdings increased by 95 VII. 20
 - C. Special LDC training materials--French language
tapes; Solving World Hunger cassette/slide
program; 139 publications VII. 21-22
 - D. Foreign language training-3 core staff/faculty
attended Summer Institute Intensive French course;
French course established and taught (6 core/faculty
staff enrolled) VII. 22
 - E. International Programs Bulletin-2 issues published
(2,600 copies of 6 pages each distributed) VII. 23
 - F. Seminars-Rev. Joseph Donders, World Food Crisis
Holly and David Alley, Peace Corp, Chile and
Brazil emphasis VII. 24
 - Rev. Roy May, Bolivia missionary VII. 25
 - Robert W. Kohlmeyer, foreign grain exports VI. 58
 - Off campus seminars-2 faculty/staff attended
BIFAD meetings VII. 28
 - 7 faculty attended Third World Conference, Omaha,
Nebraska VII. 26
 - 2 faculty/staff attended Project Design Workshops
at Washington State University VII. 28
- II. Dryland Agriculture
- A. 2 faculty/staff attended Farming Systems Symposium VII. 26-27
 - B. Plant drought research and graduate student training
project completed VII. 29-30
 - C. Plant Science research with Sri Lankan graduate
student completed VII. 31-32
 - D. Plant Science herbarium strengthened VII. 32-33
 - E. 4 faculty/staff attended and presented paper
at International Symposium on Windbreak
Technology in Lincoln, Nebraska VII. 27
 - F. GIS application course attended by 1 core/faculty
Range Science member VII. 32
- III. Remote Sensing
- A. Women in agriculture in LDCs using remote sensing
data concluded VII. 34-38
 - B. Firewood and grazing resource assessment in
Botswana, Kgatleng District concluded VII. 39-42
 - C. Groundwater occurrence analysis in Jordan
completed VII. 42-43
 - D. Cropland identification and area estimation in
Botswana, Kgatleng District VII. 43-44
 - E. Monitoring desertification project completed VII. 44-45
 - F. 1 faculty/staff attended 19th International
Symposium of Remote Sensing of the Environment,
Ann Arbor, Michigan VII. 45

IV. Rural Development

- A. Latin American Politics course (12 students enrolled), bibliography prepared VII. 47-48
- Industrial Society manuscript completed VII. 47
- Third World Women course developed VII. 50
- B. Research on women and development and nutritional assessment in Nigeria conducted by Ethiopian graduate student VII. 49-50

V. Human Nutrition

- A. Nutrition and Food Science course continued VII. 51
- B. Ethel Austin Martin Nutrition in Action Symposium VII. 51
- C. World Food Day Teleconference VII. 51

FY 6 EXTENSION
STRENGTHENING GRANT ACCOMPLISHMENTS
IN RELATION TO FOCAL AREAS

- | | | |
|------|--------------------------------------------------------------------------------------------------------------------------|----------------|
| I. | International Programs Administration | |
| | A. Special effort to locate French Journals in addition to acquisitions | VII. 60 |
| | B. 3 faculty/staff attended LASA Conference in Boston | VII. 62 |
| | 3 faculty/staff attended Third World Conference in Lincoln, Nebraska | VII. 62 |
| | C. International Programs Bulletin - 1 issue distributed | VII. 62 |
| | D. International Programs Director traveled to AUSUDIAP meeting in Fort Collins, Colorado, on 8-10 July 1986 | |
| II. | Dryland Agriculture | |
| | A. 5 faculty/staff attended the Farming Systems Symposium at Kansas State University | VII. 62 |
| III. | Remote Sensing | |
| | A. 2 faculty/core staff attended the 20th International Symposium on Remote Sensing of the Environment in Nairobi, Kenya | VII. 45-46, 64 |
| IV. | Rural Development | |
| V. | Human Nutrition | |
| | A. 8 faculty participated in the World Food Day Teleconference | VII. 62 |

IV. FORWARD PLANS UNDER A MATCHING SUPPORT GRANT

In this final section of this report, SDSU's objectives and planned activities under a Matching Support Grant (MSG) with AID are briefly discussed. These objectives and planned activities were detailed in SDSU's proposal to AID for an MSG—a proposal which was approved for funding by AID. Since activities under the MSG are just getting underway, this section of the report ends with a short discussion of those activities now underway.

A. Objectives Under the MSG

Three general objectives were included in SDSU's MSG proposal to AID. These are: (1) to enhance on-going AID-funded, Title XII-related overseas activities, including those carried out by remote sensing staff from SDSU and those of other universities with whom SDSU has collaborative arrangements; (2) to enhance the capacity of regular university employees to undertake current and future AID-funded Title XII-related overseas technical assistance activities, including here continued development of French language skills for assistance in francophone Africa; and (3) to further strengthen the AID-University partnership through technical assistance activities and faculty/staff AID internships overseas and in Washington, D.C.

Several project activities have been proposed and outlined to achieve these objectives. These include the following, by objective:

Activities Related to Objective #1.

Remote sensing staff from SDSU have been most involved in recent years in overseas AID activities (see appendix). MSG funds will support those activities through enabling SDSU faculty and staff to further enhance their language and technical skills as they relate to those overseas projects. Several SDSU faculty and staff, in departments such as Animal and Range Science and also Plant Science, have completed remote sensing short-courses and are of potential use on those overseas projects. Several of these faculty and staff have also developed language skills for francophone Africa, where much of the remote sensing technical assistance takes place. MSG funds will further prepare these faculty/staff to support those overseas projects.

SDSU has also developed collaborative arrangements with AID projects in Nigeria (AID-IITA) and the Cameroon. MSG funds will support work on those projects by enabling core staff to engage in appropriate, collaborative research here as well as traveling to those sites to provide field support for the projects. (Details on both of these projects are given in SDSU's MSG proposal.)

Linkages with other universities engaged in overseas AID, Title XII-related projects also afford SDSU an opportunity for greater overseas involvement. Support for these linkages and the cooperative projects will include travel by SDSU faculty and staff to cooperating universities as well as to field sites in LDCs. Carefully targeted on-campus research may also be carried out in support of those overseas projects.

Activities Related to Objective #2.

Language training, especially in French for francophone Africa, is a planned major activity under the MSG designed to enhance the capacity of regular university employees to undertake current and future AID-funded Title XII-related overseas technical assistance activities. Based upon AID's recommendation, one-fifth of the total MSG budget has been earmarked for language training. Language training activities, found under the Strengthening Grant to be most beneficial, will be supported. These include support for core staff to participate in intensive French language institutes off-campus and on-campus tutoring programs with regular weekly sessions as well as regular informal sessions. Although written materials (such as recently acquired French language agricultural journals) will be employed in this training, the emphasis will be on communication (speaking-listening) skills thus preparing SDSU faculty/staff to work with counterparts in francophone Africa.

Carefully targeted research activities as well as domestic travel to appropriate conferences and overseas travel to project sites are also included as anticipated activities to Objective #2. Experience suggests that in enhancing faculty and staff capacity overseas technical assistance, it is often useful to pair up less experienced with more experienced faculty. Along these lines, then, specific faculty/staff enhancement activities are planned in relation to an AID project in the Cameroon as well as in Nigeria.

Activities Related to Objective #3.

Activities associated with this objective include increasing faculty/staff awareness of opportunities for involvement in TSMs, the JCC, and BIFAD/AID internships. Seminars as well as dissemination of published materials of relevance to these programs are mechanisms to be used. MSG funds will enable SDSU to bring AID, BIFAD, and other universities' faculty/staff who have been involved in these programs to campus to discuss these opportunities and their experiences. Interested faculty/staff will be assisted in making application and/or submitting proposals to participate in these programs.

B. Activities Currently Underway

Prior to the formal signing of the MSG, SDSU obtained permission from the AID Contract Office to proceed with two planned activities due to time considerations. Both of those activities relate primarily (but not exclusively) to Objective #1--enhancement of on-going AID-funded, Title XII-related overseas activities.

Two SDSU faculty, Dr. Edna Anderson, Dean of the College of Home Economics, and Dr. Linda Baer, Associate Professor of Rural Sociology, are now in Nigeria where they are providing support to an AID-IITA project on rural development and nutrition. They are working with Dr. Natalie Hahn, of IITA, and Saba Mebrahtu, an SDSU doctoral student in Rural Sociology (who also has a M.S. in Nutrition and is a native of Ethiopia). During their stay in

Nigeria, they are providing faculty/staff seminars as well as research advisement support for Ms. Mebrahtu in the work that she is doing on the AID-IITA project. Drs. Anderson and Baer are in Nigeria for a two-week period, 29 May - 5 June 1987.

Two SDSU staff members, Dr. Paul Nordstrom, Associate Dean for the College of Agriculture and Biological Sciences and also International Programs Director (replacing Dr. Duane Everett while he is on leave from SDSU to BIFAD), and Dr. Thomas Bare, Agriculture Communications Specialist at SDSU, are attending a joint meeting of Agricultural Communicators in Education (ACE) and the Association of U.S. University Directors of International Agricultural Programs (AUSUDIAP) in Rhode Island, 1-4 June 1987. Their participation in this program, for which Dr. Bare has been asked to serve as an evaluator, is seen as essential as SDSU becomes involved with other universities in joint AID, Title XII-related overseas projects. Dr. Nordstrom's participation at this time is particularly critical since he just recently assumed the position of International Programs Director at SDSU.

In concluding this discussion of activities currently underway, it might also be pointed out that progress toward the achievement of the third objective under the MSG has already been realized with the loan of Dr. Duane Everett from SDSU to BIFAD for a two-year period. It is anticipated that this activity will further strengthen the relationship between SDSU and AID.

APPENDIX

Cartographic Services to USAID, The Gambia
AID Contract No. 685-0203-C-00-6039-00

May 1986 - September, 1986
\$298,168

The objectives of this project are to provide cartographic services to produce land classification maps useful for resource planning and management and to train Gambian technicians in aerial photographic interpretation techniques and all aspects of map production.

Maps to be produced include planimetric base maps and separate registered transparent overlays at a scale of 1:50,000 and 1:125,000. The overlays are for rangeland, cropland and fallow land, forestry and soils. The planimetric base maps are being updated utilizing field classification techniques and aerial photography. A team of five natural resource specialists will complete the field verification, the aerial photographic interpretation and the preliminary map and overlay production in The Gambia during the first two months of the project. The final map production and report writing will take place during the final two months of the project.

The training program involves a two-week workshop in the Gambia and one to two months of training at South Dakota State University. The workshop will provide training for 10-12 Gambian resource planning technicians and will focus on the interpretation of aerial photography, field survey techniques, basic mapping procedures, the care and storage of maps and photographic data, and the development of overlay maps. Four Gambian technicians will receive advanced training in these topic areas at South Dakota State University.

VOLUME OF BUSINESS

Name of University South Dakota State University

Actual Expenditures under A.I.D.-Funded, Title XII-Related Grants, Contracts and Cooperative Agreements.

Contract Number*	Contract Title	Expenditures**			Primary or Sub-Contracting Agency
		FY1983	FY1984	FY1985	
633-074	Agricultural College Expansion - Botswana	522,468	371,065	26,903	AID
AID/NE-C-1644	Land Classification and Soil Survey - Syria	124,009	119,691	--	Louis Berger/AID
AFR-C-1619	Renewable Resource Management - Mauritania	247,329	35,591	--	AID
685-0833-C-00-2103-00	National Plan for Land Use and Development - Senegal	362,194	586,036	504,092	AID
388-0051-01	Training & Consulting Activities Related to Remote Sensing in Bangladesh			13,726	Winrock Intern/AID

* Please list numbers for both prime and subcontracts, if applicable.
 ** Please report for your three most recent fiscal years for which you have data.

I hereby certify that, to the best of my knowledge, the figures are accurate and represent appropriate A.I.D. funding.

 Title: _____

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University Name South Dakota State University

LONG-TERM ASSIGNMENTS

Long Term Overseas Assignments on A.I.D.-Funded Title XII-Related Technical Assistance Contracts Funded by A.I.D.

Please provide the information requested below for member of your university that have been on A.I.D. funded long-term (12 continuous months or longer) overseas technical assistance assignments during the last three fiscal years.

Contract Number	Contract Name	Contract Country	Employee Name*	Previous Employer**	Academic Discipline***	University Academic Rank+	Mature and Length of Assignment Commitment Subsequent to Overseas Work++	Long-Term Assignment Number of Months		
								1983	1984	1985
<u>REGULAR UNIVERSITY EMPLOYEES:</u>										
633-074	Ag. College Expansion	Botswana	Duane Everett	SDSU	Chief of Party	Professor	Tenured	12	6	--
633-074	Ag. College Expansion	Botswana	Leon Bush	SDSU	Livestock Spec.	Associate Professor	Tenured	8	--	--
633-074	Ag. College Expansion	Botswana	Ron Thaden	SDSU	Agronomist	Extension Specialist	Tenured	12	12	6
633-074	Ag. College Expansion	Botswana	Paul Carson	SDSU	Agronomist	Professor	Tenured	6	--	--
633-074	Ag. College Expansion	Botswana	Lloyd Hanson	SDSU	Extension	Extension Specialist	Tenured	11.5	--	--
685-0833-C-00-2013-00	National Plan for Land Use & Development Program	Senegal	Gray Iappan	Lockheed	Ecologist	Environmental Scientist	SDSU	12	12	10
<u>NON REGULAR UNIVERSITY EMPLOYEES</u>										
685-0833-C-00-2103-00	National Plan for Land Use & Development Program	Senegal	Fredrik Hilwig	ITC	Chief of Party	Environmental Scientist	None	12	1.5	--
685-0833-C-00-2103-00	National Plan for Land Use & Development Program	Senegal	Andrew Stancioff	Self	Chief of Party	Geohydrologist	None	7	12	10.5
685-0833-C-00-2103-00	National Plan for Land Use & Development Program	Senegal	Mar Staljanssens	ITC	Soil Scientist	Environmental Scientist	None	--	4.5	10.5

* First and last full names (ex.: Jarvis Moore; Karen Black).

** Alternative responses might include other university (specify), USDA, consulting firm (specify), etc.

*** List the academic disciplines (ex.: weed science, ag economics, etc.) or if not academic, describe the character of the work (ex. administration).

+ Title refers to faculty or administrative position while overseas (examples are: Associate Professor, Research Associate, Specialist, etc.).

++ Indicate whether tenured or tenure track faculty, permanent research or administration, or temporary commitment of one, two or more years, or no commitment.

I hereby certify that the above data are accurate.

Title: _____

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University Name South Dakota State University

SHORT-TERM ASSIGNMENTS

Short Term Overseas Assignments on A.I.D.-Funded Title XII-Related Technical Assistance Contracts Funded by A.I.D.

Please provide the information requested below for members of your university that have been on A.I.D. funded short-term (less than 12 continuous months) overseas technical assistance assignments during the last three fiscal years.

Contract Number	Contract Name	Contract Country	Employee Name*	Previous Employer**	Nature of Overseas Assignment***	Academic Title†	Nature and Length of Assignment Commitment Subsequent to Overseas Work††	Short-term Assignments Number of Months		
								1983	1984	1985
REGULAR UNIVERSITY EMPLOYEES:										
685-0833-C-00-2103-00	National Plan for Land Use & Development Program	Senegal	Kevin Dalsted	SUSU	Soil Scientist	Soil Scientist	SDSU		1	
685-0833-C-00-2013-00	National Plan for Land Use & Development Program	Senegal	Mary DeVries	SDSU	Computer Specialist	Computer Specialist	SDSU	.5		
685-0833-C-00-2013-00	National Plan for Land Use & Development Program	Senegal	Janet Gritzner	SDSU	Demographic Specialist	Specialist	SDSU		.5	
685-0833-C-00-2013-00	National Plan for Land Use & Development Program	Senegal	Fred Westin	SDSU	Soil Scientist	Soil Scientist	SDSU	.5		
685-0833-C-00-2013-00	National Plan for Land Use & Development Program	Senegal	Victor Myers	SDSU	Project Leader	Project Leader	SDSU	.75	1.5	.75
888-0051-01	Training & Consulting Activities	Bangladesh	K. Dalsted	SDSU	Team Leader	Workshop Coordinator	SDSU			1
NON REGULAR UNIVERSITY EMPLOYEES:										
533-074	Ag. College Expansion	Botswana	J. Zajicek	Self	Ag. Comm.	Teacher	None	3.5		
533-074	Ag. College Expansion	Botswana	C. Carter	Self	Library	Consultant	None		2.25	

I hereby certify that the above data are accurate.

Title: _____

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