PROJECT ASSISTANCE COMPLETION REPORT

OF

DIVERSIFIED AGRICULTURE RESEARCH PROJECT (DARP)

SRI LANKA

PROJECT NO.383-0058

BY

UNITED STATES AGENCY FCR INTERNATIONAL DEVELOPMENT

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BASIC PROJECT INFORMATION

1. Country	: Sri Lanka
2. Project Title	: Diversified Agriculture Research
3. Project Number	: 383-0058; Loan Number: 383-T-033
4. Project Dates	: August, 1984 - August, 1993
Project Agreement Signed	: 08/24/1984
Final Obligation	: FY 1992
Project Assistance Completion Date	: 08/31/1993

5. Project Funding:

A.I.D. Bilateral Funding Grant:	US$ 11,100,000
Loan:	US$ 3,197,437
Total:	US$ 14,297,437

Host Country Counterpart Funding: US$ 6,700,000

6. Implementing Institution :	The Department of Agriculture under the Ministry of Agricultural Development & Research
7. Mode of Implementation :	AID direct contract with Development Alternatives, Inc. (DAI). AID Grant and Loan to Government of Sri Lanka (GSL) to be used along with GSL funds to finance the project activities in the Department of Agriculture.
8. Evaluation :	First evaluation : 09/1987 Interim evaluation : 05/1989 Final evaluation : 05/1993

LIST OF ACRONYMS AND ABREVIATIONS

AID	US Agency for International Development
AID/W	US Agency for International Development/Washington
CRSP(s)	Collaborative Research Support Program(s)
COC	Cost of Cultivation
DAEP	Division of Agricultural Economics and Planning
DAI	Development Alternatives Incorporated
DARP	Diversified Agricultural Research Project
DOA	Department of Agriculture
EOP	End of Project
FSR/E	Farming Systems Research/Extension
GSL	Government of Sri Lanka
Greengram	Mung bean
IARC(s)	International Agricultural Research Center(s)
IPM	Integrated Pest Management
JICA	Japan International Cooperation Agency
LOP	Life of Project
LT	Long Term
LTTA	Long Term Technical Assistance
LTTR	Long Term Training
MADR	Ministry of Agricultural Development and Research
MODTF	Management and Organization Development Task Force
Maha	Winter rainy season
Meda	Dry spell between Maha and Yala rainy seasons
MT	Metric Ton
OFC	Other Field Crop
PACD	Project Assistance Completion Date
PL480	Public Law 480(food aid)
PMU	Project Management Unit
PP	Project Paper
RARC	Regional Agricultural Research Center
RTWG	Regional Technical Working Group
Rs.	Rupees (Sri Lankan currency)
SFCs	Subsidiary Food Crops
SPF	Special Projects Fund
ST	Short Term
STTA	Short Term Technical Assistance
STTR	Short Term Training
TA	Technical Assistance
T&V	Training and Visitation System (World Bank)
USA	United States of America
USG	US Government
USAID	United State Agency for International Development
WB	World Bank
Yala	Summer rainy season

PROJECT ASSISTANCE COMPLETION REPORT (*)

Diversified Agriculture Research Project/ Sri Lanka
Project No: 383-0058

1. Executive Summary:

The Diversified Agriculture Research Project (DARP) has been an effective and beneficial project. It has contributed materially to strengthening the Department of Agriculture (DOA) through the technical assistance, training, computerization, buildings and equipment and through the Special Project Fund which facilitated the implementation of DOA activities. Numerous studies and reports backed by seminars and workshops have contributed substantially to positive changes in relevant GSL policies, programs and attitudes. The sections of this report dealing with Inputs and Deliverables and the Outputs and Achievements clearly indicate the project's progress and its impacts.

The goal of DARP was to 'increase income, employment and nutrition for small farmers producing Subsidiary Field Crops (SFCs) in the dry and intermediate zones of Sri Lanka'. The purpose was to 'strengthen the institutional capability to generate and effectively transfer technologies and seed required to increase and sustain SFC production on small farms.'

The Diversified Agriculture Research Project (DARP) was implemented under an agreement between the Department of Agriculture (DOA) and the United States Agency for International Development (USAID). Development Alternatives, Inc. (DAI), under contract number 383-0058-C-00-5023, provided technical and managerial assistance to the Project.

DARP was initiated in 1984, as Sri Lanka approached self-sufficiency in rice, its staple food crop, but with significant deficits in other food crops, particularly coarse grains and grain legumes. The initial phase of DARP through 1990 emphasized agricultural diversification with emphasis on SFCs. Two interim evaluations (done in 1987 and 1989) found that the project was making meaningful progress towards its objectives but that the original assumptions relating to the availability of an inter-personal extension service and profitable and favorable markets for a wide range of SFCs were no longer valid. Accordingly, DARP in its second phase from 1991 to 1993 focussed on:

* Development of private sector seed enterprises to replace DOA production;
* Increased emphasis on high value horticultural export crops rather than on low value crops;
* Satisfaction of markets rather than import substitution;
* Fostering demand-driven, rather than scientist-set research priorities;
* Increased emphasis on farm incomes and employment, rather than food;
* Greater use of mass communication for technology transfer.

(*) This Completion Report draws extensively on material and text from the Final Evaluation Report and the T.A. Contractor's Final Report.

The activities during the final phase included additional emphasis on high value horticultural crops, featuring a horticultural assessment, continued with introduction of germplasm, improvement of post-harvest handling and marketing. Most of the immediate gains from diversification were achieved in vegetable crops such as chilli and onion. The project contributed to development of tropical fruits, other vegetables, and the ornamental plant and tropical foliage industry.

The changes in project activity accompanied and reinforced a shift in Sri Lankan Government policies toward a market economy, private sector development and export promotion. These changes also supported the USAID Strategic Framework, which called for expanding opportunities through a new private-public partnership and agriculturally led industrialization. The project began with a central focus around research on SFCs, while during the later phase, greater resources were dedicated to the delivery of services to farmers and others in the private sector through activities in extension communication, seed industry development, horticultural industry development and the assessment of DOA options to meet the needs of a changing client base. The project supported a DOA research planning effort and development of overall and inter-divisional management systems.

Finally, and most importantly, though difficult to quantify, DARP has resulted in widespread change in attitude and orientation of the agricultural establishment. The Project has led to acceptance of (a) a policy of food self-reliance rather than self-sufficiency; (b) the importance of the private sector; (c) need for agricultural commercialization and diversification to increase incomes for the rural poor; and (d) need for government research and technical services to be responsive to clients. DARP support and management training has led to: (a) complete restructuring of the DOA and (b) formation of a Horticultural Research Institute. Specific policy reforms resulting from the project included: shift to private sector commercial seed production, increased emphasis on research on diversified crops, reorganization of DOA, and shift to mass media extension programs.

Project impacts on agricultural productivity will generally require longer to materialize, as new crop varieties and technologies flow from research programs through extension programs to farmers and private firms. Annex A (Commodity assessment provides summary analysies of some of the commodities with which DARP has worked.

The DARP project resulted in extensive impacts on the project purpose of strengthening DOA institutional capabilities to work with diversified small farm crop production. Research capability increased with improved research planning, overseas training of 448 staff, technical input to programs and improved facilities and equipment. Research trials on diversified crops increased appreciably. The project assisted the DOA to adapt to the withdrawal of ineffective and costly field extension staff and established a mass media communication capability and strategy resulting in a cost effective extension system. Support from DARP for institutional and policy development facilitated a move from a fully public sector seed trade to private sector seed import and a growing local seed production industry.

Impacts from the DARP project supported development of GSL institutional capacity will only be seen over time. Impact of agricultural research can be far-reaching but requires considerable time to be disseminated and to yield benefits. There have, however, been some initial impacts on OFC production during the project life. Based on the project final report the most significant changes were in annual production of chillies and onions which increased by 1,160 mt. and 5,739 mt respectively between 1981 and 1992. This increase is worth approximately US $4.5 million per year. Based on average yields and cost of cultivation this would equate to approximately 1,673 ha. of production of these crops and annual increases over rice production of approximately 830 person years of labor; $1.23 million in investment; $1.71 million production and $0.91 million farmer return to labor.

2. INPUTS AND DELIVERABLES:

This section summarizes the life-of-project inputs provided in five categories: (1) technical assistance; (2) participant training; (3) special project funds; (4) facilities construction; and (5) commodities procurement.

2.1 Technical Assistance

The primary technical assistance contractor responsible for project implementation and technical assistance was Development Alternatives, Inc. (DAI). DAI provided long-term and short-term advisors, home office back-stopping, and local project staff. DAI was also responsible for management of the Participant Training and Special Project Funds. Two subcontractors served on the project: Oregon State University (OSU) provided various long and short-term expatriate advisors throughout the DAR Project, and Resource Development Consultants (RDC) provided local technical short-term advisors and handled payroll and benefits for Sri Lankan project staff.

Additional services for specific technical assistance requirements were acquired by DAI from:

- Mississippi State University (MSU) for seeds;
- Oklahoma State University for statistics software packages;
- World Education for training of trainers;
- Training Resources Group (TRG) for management training; and
- Queensland Department of Primary Industries (DPI) for nursery management and propagation of perennial tropical fruits.

A total of 375 person-months of technical assistance was supplied by DAI over eight years, 230 through long-term advisors and 145 through short-term consultants. In addition, another 33 person-months of assistance were closely associated with DARP through linkages with other organizations. DARP funds were used for some of this assistance, paid directly by USAID, outside the DAI contract.

Annex B-1 lists all short and long-term consulting assignments and the level of effort in person-months under the DARP project. A brief description of technical assistance assignments is provided in Annex B-2, organized according to technical areas. All contracts have been closed.

2.2 Participant Training

The Institute of International Education (IIE) managed the participant training program under a subcontract with DAI. A total of 65 scholars received long-term training in 22 disciplines as summarized in the table below and presented in detail in Annex B-3. A novel feature was the introduction of the split-degree program between USA universities and Sri Lanka universities.

Number of MSc and PhD Scholars who have received training in various disciplines 1985-1993

Seed Technology	8	Food Science	1
Insect Taxonomy	1	Entomology	5
Agri. Economics	6	Agri. Extension	2
Extension Mgnt.	1	Rural Sociology	1
Agri. Education	4	Agronomy	3
Plant Pathology	4	Plant Breeding	5
Weed Science	3	Cropping Systems	1
Farming Systems	1	Pesticide Chemistry	1
Water Management	4	Soil & Water Management	1
Soil Science	1	Statistics & Biometry	1
Agri. Machinery	1	Dev. Communication	2
Horticulture	4	Library & Info. Science	1

Three long-term participants did not return after completion of their training and three returned and then again left the country before completion of their service agreement period. USAID/Sri Lanka has issued a bill for collection to the GSL to recover the costs of this training. The GSL assumed responsibility as guaranter for trainees' return and completion of required service.

Short-term training included participation in study tours, attendance at conferences, seminars, workshops and short courses. A total of 383 participants received short-term training, 245 during the original five-year phase (Annex B-4) and 138 during the three-year extension phase (Annex B-5). In total, 152 training programs were conducted.

Under the original phase, 484 person-months of short-term training were completed, 69.25 in the USA, 338.25 in developing countries and 76.50 in Sri Lanka. 106 person-months were completed in the extension phase including: 27 in USA; 69 in developing countries; and 10 in Sri Lanka.

As the project evolved, study tours were increasingly used to bring focus to particular policy areas. While on tours, participants were also obliged to collect germplasm from countries visited.

Numerous local workshops, seminars and conferences were also sponsored and managed by the project. In addition to the above, over 200 DOA officers attended local training in the use of computer software programs.

2.3 Special Project Funds

Funds were provided through DARP to facilitate project activities in areas where DOA operational budgets were inadequate. In 1992, over $500,000 was added to the DAI contract to be managed on behalf of the project. Special Project Funds (SPF) were utilized to support 48 activities including the following:

- Printing Crop Recommendations Technoguide;
- Mass media campaigns--radio, television, and publications;
- Installation of a farm broadcasting recording studio;
- Importation of germplasm;
- Field demonstration programs;
- Research grants program;
- Workshop on biotechnology;
- National Horticultural Exhibition;
- Special studies;
- Farm manager, farmer, and nurserymen/women training;
- Seed enterprise manager;
- Installation of seed cleaning equipment;
- Management training workshops; and
- Training in software applications.

Funds allocated were fully utilized as detailed in Annex B-6.

2.4 Facilities Construction

In order to strengthen the Department of Agriculture's research facilities for SFCs, DARP identified the major needs of DOA stations directly linked to crop diversification. A total of 42 facilities were commissioned by the third quarter of FY 1992 at a cost of $850,000. These facilities were built at five major regional research centers working on SFC's and at three seed stations to which DARP trained staff and the bulk of DARP commodities and equipment were assigned. Details of the facilities construction component are provided in Annex B-7.

2.5 Commodities Procurement

The Department of Agriculture was provided with commodities/equipment valued at $2,240,000. Some of the items supplied to the DOA included: agricultural equipment; tractors; passenger vehicles (11 Nos.); utility vehicles (34 Nos.); motor cycles (40 Nos.); laboratory equipment; mass media (audio-visual) equipment; computers and accessories; seed cleaners; and an array of office equipment and supplies.

The agricultural equipment (tractors, plows, harvesters, sprayers, etc.) was assigned to the major DOA seed centers producing basic and registered seed. Six seed cleaners, were installed in seed centers at Pelwehera, Aluttharama and Nikaweratiya. Two new seed cleaners and a DOA seed cleaner are assigned for use by seed enterprises as a support to the seed producers.

The transport vehicles (45) were assigned to all major divisions of the DOA. The bulk of the nearly $400,000 worth of research laboratory equipment was distributed among the major Regional Agricultural Research Centers dealing with diversification research.

The audio visual center, farm broadcasting and television units of the DOA Technology Transfer Division were provided with sophisticated audio-visual equipment and accessories.

Computers have been provided to DOA divisions (research, economics, technology transfer, seed and other) to directly support DARP funded programs on computerization and training in computer use for DOA staff.

3. OUTPUTS AND ACHIEVEMENTS

Highlights of DOA/DARP activities in research, extension, seed industry development, horticultural industry development, and institutional strengthening are briefly described in this section. For specific information on the assignment of technical advisors, see Annexes B-1 and B-2.

Project progress against key purpose and output level indicators is given in Table 1. Monitoring of purpose level indicators is complicated by the disruptions caused by civil war which affect various crop yield averages and area planted differently. Indicators reflect an expected year-to-year variation, but a very favorable trend.

Table 1: Progress Against Purpose and Output Indicators

PURPOSE LEVEL INDICATOR	BASELINE	LOP TARGET	TOTAL TO DATE	FY 93 ACTUAL/ PLAN
#1. Average yield per hectare of major SFC'** based on index of average yields 1982-1987 equal to 100. Major SFC districts excluding the North and East considered.	100	136 (1993)	115 (1989) 119 (1990) 129 (1991) 104(1992)*	***/136
#2. Gross annual extent of major SFCs (as above).	100 (134,000 ha)	136	122 (1990) 118 (1991) 104 (1992)* 120 (1993)	120/136
OUTPUT TARGETS PERFORMANCE	**BASELINE**	**LOP TARGET**	**TOTAL TO DATE**	**FY 93 ACTUAL/ PLAN**
#1. Increased number of trained personnel at advanced degree level.	0	65	60	19/19
#2. Improved facilities (construction) at research and foundation seed farms	0	44	44	0/0
#3. Commodity analysis and policy reviews for an action plan for 8-12 crops with export potential	0	41	36	2/2
#4. Research priorities and strategy in SFCs and horticulture crops enabling objective progress evaluation and adjustments as needed.	0	2	2	0/0
#5. Germplasm introduction and release of new improved crop varieties	0	17	17	2/2
#6. Improve technology transfer systems through mass media campaigns to promote adoption of new technologies	0	8 campaigns	8	4/4
#7. Restructuring of seed industry through establishment of private seed enterprises	0	15	16	8/7

** Corn, Cowpea, Greengram, Blackgram, Sesame, Groundnut, Chilies, Big and Small Onions.

* Drought affected the Yala 1992 season (the main SFC season) badly.

*** Not available

3.1 Research Capability

The original phase of DARP concentrated heavily on research to select appropriate crops for diversification, introduce germplasm, and determine the best farming systems. Agronomic research focused on soil fertility, plant spacing, and cropping systems. Technical assistance in agronomy concentrated on advising DOA officers on research plans for SFCs, analysis and interpretation of data, and guidance in writing research reports. Socio-Economic research was geared to development of data collection and management systems.

The evolution of public policy from import substitution to a mixed import substitution and export strategy to support a more open, market oriented system led to changes in the research agenda. This shift encouraged an emphasis on diversification, decentralization of the agricultural research community and cooperation between research organizations and the private sector.

Thus, extension phase emphasis on horticultural crops and seed enterprise development followed research findings and facilitated changes in public policy.

Market analysis became more important in the "extension phase" of the project. Emphasis on horticulture increased with the importation of germplasm and funding of research grants. Reviews of research management, seed policy, varietal release and plant quarantine procedures were also carried out by the project.

3.1.1 Research Planning and Coordination

Fourteen crops were selected for special attention in the DOA's plan for crop diversification. Timely research planning became a routine activity in the Department with the establishment and operation of the Research Planning Cell.

DARP assisted in preparation of a five-year research plan after a lengthy analysis of priorities and a survey of research officers throughout the country. Of 80-90 crops under the mandate of the DOA, 10 were proposed for top research priority and another 20 for secondary priority. Research thrusts were then identified for these top thirty crops and specified technical disciplines.

Seminars and discussions with directors and research officers of Regional Agricultural Research Centers (RARCs) across the country led to increased cooperation and communication between staff working on the same commodity at different research centers. Appointing research coordinators to area-wide projects further improved communication between RARCs and research staff. These activities helped Regional Technical Working Groups (RTWG) to involve the Extension Division in research planning.

Linkages between the DOA, international agricultural research centers and national centers in neighboring countries with similar agro-climatic and cultural conditions were established or expanded during the project.

Recognition of the need for better communication between researchers on a national basis led to the formation of professional societies in extension, socio-economics and weed management.

Sri Lanka's varied physical environment requires special attention to research methodology. The project helped research officers in the adoption of experimental procedures which permit valid comparison of research data.

Assistance with analysis of research data was provided and reporting and publishing of results were encouraged through weekly contact with research officers at RARCs. This was supported by a research workshop held in cooperation with the DOA and the University of Peradeniya at which the steps between the conception of a research idea and reporting and publishing research results were reviewed and discussed.

3.1.2 Socio-Economic Research

The baseline study conducted under DARP was the first large scale computer-assisted agricultural survey to be conducted by the DOA. The study consolidated information on production and marketing of SFCs to support research and extension activities. The two-season survey included 12 crops under rained and irrigated conditions in 60 crop settings from 4,000 farms. About 50 computer routines were developed to analyze the data and produce meaningful results. The procedure also served as a training exercise for research officers in the Division of Agricultural Economics and Planning (DAEP) who were closely involved in all aspects of the survey. The size of the survey and time required for its completion did not allow it to be repeated for monitoring changes in cropping patterns.

Five socio-economic studies were conducted by staff of the University of Peradeniya in cooperation with the DOA.

A workshop on Farming Systems Research/Extension (FSR/E) held during the first year of the project reviewed the status in Sri Lanka. DARP financed the participation of more than 15 DOA officers at the Asian FSR/E Workshop held in Colombo in 1992.

Through other DARP surveys, some useful information about the farm population was generated with implications regarding the probability of adopting diversified crops. About 31 percent of farmers indicate that farming is not their primary occupation and another 35 percent paid rent or divided their harvest with a landlord. Both of these factors are negatively correlated with cultivation of crops other than paddy. A minority of farmers (only 44 percent) are not affected by these two factors.

Another study looked at policy issues surrounding diversification and made recommendations on future directions for DOA programs.

A special study compared the profitability of conservation farming systems with traditional farming. Adopters of conservation farming, combining perennial crops and livestock with annual crops, were found to be more efficient in their use of resources.

3.1.3 Market Analysis

DAEP staff wrote nine papers on marketing of seven crops and an overview of production and marketing of SFCs. A paper analyzing trends in area planted, production and yields of 14 SFCs was also completed. Based upon findings of the studies, a policy paper was written listing the information requirements for farmers to make sound production and marketing decisions.

Cost of cultivation (COC) data collected by the DAEP were used to conduct trend analyses and to produce production and marketing studies. Project assistance to the collection and analysis of COC data included: modification of questionnaires; revision of computer programs; and preparation of a user's manual.

Three workshops were held to train DAEP staff on the appropriate use of software for different types of economic analysis.

In-depth studies were carried out on maize, soybean, and onion, focussing primarily on marketing issues, including estimates of demand and projections to the year 2000. Each report recommended specific programs and policy measures needed to encourage production of these crops. The reports concluded that further heavy investments in research and extension on grain crops is not worthwhile, but that emphasis on onion production was economically justifiable.

3.1.4 Introduction of New Germplasm

Approximately 2,500 germplasm lines of field crops, vegetables, tropical fruits and ornamental plants were imported for field trials and variety improvement programs. A breeding program was developed for legume crops.

During the extension phase, over 200 varieties of orchids, and over 300 varieties of fruits were imported into Sri Lanka under closely monitored conditions. These materials were selected by DOA officers while on study tours in Thailand, Australia and Malaysia.

Once adequate planting material is propagated from these introductions, they will be made available to private nurserymen and growers.

3.1.5 Reviews of Varietal Release and Plant Quarantine Procedures

A Review of Varietal Release Procedures was done to suggest ways to improve the mechanism and to examine ways in which private enterprise may take responsibility for certain stages in the seed system. The report proposed pathways of introducing new varieties where the seed importer can enter the DOA's series of valuative steps and achieve "recommended" status, or elect to present less valuative documentation and request "listed" status. Procedures were also recommended for materials developed in Sri Lanka by non-DOA organizations, such as universities.

It was recommended that the two key committees involved (National Seed Certification Committee and Variety Registration Committee) in variety approval be reconstituted to include private sector and grower representatives. The recommendations were scrutinized in detail by participants at a workshop and was an important example of public and private sector cooperation to achieve common goals.

A DARP team worked closely with officers of the Seed Certification and Plant Protection Division (SC&PP) to complete a Review of Plant Quarantine Policies and Procedures. As a result of this review, the plant quarantine system was streamlined for many low-risk items, while maintaining the restrictive policies for other plant materials where appropriate. A workshop was subsequently held with representatives of the private sector and other institutions.

The new policies were adopted and implemented, without the immediate need of amending existing laws and regulations. The Seed Certification and Plant Protection Division (SC&PP) is strengthening its staff capabilities and facilities in order to implement an effective plant quarantine service. Facilities for the plant quarantine are being provided by the Japanese government.

3.1.6 Pest Management

DARP has made important contributions in weed management research programs. A national weed coordinator was appointed to organize weed management research in a systematic manner. A survey was conducted to determine farmers' weed problems and the effectiveness of their existing weed management practices. One hundred forty-five weed specimens were collected, preserved and deposited in the National Herbarium.

Effective control of *Cyprus rotundas*, one of the most serious field weeds in Sri Lanka, resulted from experiments in which herbicides were applied by an applicator modified by the weed coordinator and a DARP consultant.

The overall program on weed management resulted in the development of a 28-page technoguide, Department of Agriculture Recommendations on Weed Management in Field Crops, for use by farmers and extension staff.

3.2 Technology Transfer

The project design called for improved cultivation practices to be used by farmers in growing SFC. As pointed out earlier, few DARP resources were specifically aimed at technology transfer in the early stages of the Project. However, after devolution of extension personnel to the provinces, the village-level worker and T&V extension systems were discontinued. In response to this changed environment, DOA called upon DARP to dedicate resources to develop mass media communications systems to facilitate information and technology transfer.

3.2.1 Improved Practices

A comprehensive publication called Crop Recommendations Technoguide was developed and printed in English, Sinhala, and Tamil. The guide includes recommendations for farmers on 35 crops and 32 crop combinations. The Technoguide has been widely distributed and is used throughout the country.

Inter-cropping experiments and on-farm demonstrations of maize and legumes resulted in increased unit area productivity and profits of 15 to 35 percent in some districts.

Extensive demonstrations were carried out to show the benefits of growing new crops in low-lying paddy lands during Meda (just after Maha) and in Yala season. In 1993, the area of demonstrations for Meda crops was expanded from 20 hectares to 250 hectares.

Yala season demonstrations in low-lying paddy lands where water is insufficient for paddy cultivation included onion, blackgram, chili, cowpea, green gram, groundnut, red onion, soybean, sweet potato, and other vegetables. In many cases farmers were growing these crops for the first time. In other cases, they grow the crops in uplands, but had not previously used fallow paddy lands for these crops. In a few instances, such as with sweet potato, the idea of the demonstrations was to expose farmers to a new variety and new cultivation techniques. Field days to draw farmer attention to the demonstrations were well attended. (Impacts of the new technologies are described in Annex A).

3.2.2 Mass Media Programs

An analysis of mass media activities, staff, equipment and facilities was conducted and a pilot project utilizing an optimal mix of available media was recommended. A communications baseline survey was conducted.

On-the-job training of Farm Broadcast Service staff was conducted continuously over a three-month period in 1993. Methodology of program planning was covered in detail and practiced in a farmer magazine quiz program in Colombo and field documentaries. Other local training was provided in video production and desk-top publishing.

Four mass media campaigns were carried out. The campaigns were designed to focus activities of the Audio-visual, Farm Broadcasting, and Publications centers around specific topics of high priority for the agricultural sector. The campaigns were as follows:

Safe Use of Pesticides: Televised (TV) discussion programs and radio spots in Sinhala and Tamil were developed and broadcast daily through the major crop growing season.

Meda Season (Inter-seasonal) Cultivation: Radio announcements and programs were broadcast, and a 15-minute TV discussion was held in February, 1993. Lead newspaper articles featured Meda season cultivation This mass media effort supplemented the massive field demonstration program described earlier.

Cultivation of SFC in Paddy Lands: Materials for this campaign included radio spots, TV program, newspaper articles, and leaflets. Leaflets covered a wide range of crops, including big onion, chili, rambuttan, passion fruit, pineapple, and mangosteen. A booklet was published on big onion. This campaign was implemented to support DARP field extension activities.

Quality Seed Promotion: The focus of the campaign was to promote use of high quality seed either from the farmers' own fields or formal suppliers. Additionally, the messages stressed that farmers look for seed certification labels when they purchase seed. Materials were prepared, for radio spots, a video, TV spots, a lead newspaper articles, and leaflets. This effort supported other work in seed industry development. (See section 3.3 below.)

These campaigns will be continued by the DOA in the succeeding seasons after DARP.

The Honorable Minister of Agricultural Development and Research, Mr. R. M. Dharmadasa Banda, led the seminar on the topic of Community Radio. The seminar, organized by DARP, presented the concept of community radio, which involves participation of the local population in selection of topics and design of programs.

3.3 Seed Industry Development

The Project was challenged with development of the seed industry based on private enterprise even at a time when the state (through the DOA) produced, imported, and marketed all seed sold in Sri Lanka. The project design called for production and distribution of sufficient SFC seed to cover 10 percent of the area planted. Development of the seed industry was to include all important seed crops, including paddy.

3.3.1 Private Seed Enterprise Development

Accomplishments in the first phase of DARP included a national workshop to evaluate the current status of the seed industry and chart directions for continued development; cost-of-production studies; establishment of the Seed Development Unit to provide technical assistance to new seed companies; establishment of a Seed Association comprised of seed importers; reduction in the number of government seed farms from 37 to 19; research into improved seed packaging; and increased certification of SFC seed.

During the "extension phase," the DOA took more initiative to assist in formation of independent enterprises. A Multipurpose Cooperative Society showed the most initiative in regard to paddy seed production. A business plan was developed and discussed with the manager and his staff, and contract growers. After the initial enterprise began successful operation as "Royal Seeds," the plan was quickly replicated by three more cooperatives and other private agribusinesses. DARP assisted seed enterprises in other crops such as chili, beans and tomato. (See Annex E for a list of nearly 20 seed enterprises currently in operation.)

These new enterprises were guided and assisted by the DOA, and were provided basic seeds and use of DOA facilities such as storage and processing. These seed enterprises together produced about 410 mt of seed paddy, 10 mt. tones of bean seed, and 5 mt of chili seed in their first season of operation, Maha 1992/93. By the end of the project, independent enterprises were producing 100 percent of commercial chilli seed and about 20 percent of paddy seed that was marketed in earlier years.

3.3.2 Seed Processing and Marketing

New processing equipment was imported and installed in DOA facilities to replace older, existing equipment. These will be useful in the processing of basic (foundation and registered) seed by the DOA. Some of the older machines, appropriate for commercial seed cleaning, are being transferred to independent enterprises. The first of these transfers had taken place. DARP has funded the procurement of two additional cleaners for use of the private seed sector.

A major seed marketing study using a farmer survey and secondary information sources confirmed that farmers recognized the importance of using high quality seed in almost all crops; cooperatives and private dealers are the most likely channels to improve distribution, as they have sales outlets already in existence; the formal seed market is characterized by repeat buyers who purchase seed every year or once in two or three years; low prices attract first-time buyers, but high quality will attract repeat customers; and high germination is the dominant factor which leads to increased productivity.

3.3.3 Seed Policy

The emergence of new enterprises and support in seed processing and marketing are evidence of the recent strategy being pursued by the DOA. DARP has assisted with efforts to communicate this strategy to a wider audience and to develop a policy statement that would serve as a guide to the rapidly-growing number of participants in the seed industry.

Provincial-level seed workshops became a forum to discuss efforts of all organizations involved in production, management of resources for the development of the seed industry, private sector seed enterprises, cooperatives, farmer organizations, and regional, provincial and national level officers. The discussions led towards evolving policies to promote the seed industry and efficient management of scarce resources.

DARP provided funding for six participants to conduct a lengthy study tour, visiting the United States, two countries in the region (Thailand and Indonesia), and two in South America (Colombia and Bolivia) to explore alternative approaches to seed industry development. Upon finalization of the tour, the group drafted a new seed policy for Sri Lanka, which emphasizes support to the development of independent seed enterprises and promotion of production and utilization of high quality seed.

Based on this document, a new policy statement has been drafted and is nearing release by the Government of Sri Lanka as of this writing. The primary objectives of this policy are to refocus DOA seed programs to take a pro-active industry promotion approach and to place the responsibility for commercial seed production entirely with the private sector. Elements of the draft policy include:

1. The Ministry of Agricultural Development and Research (MADR) will explore new ways to foster collaboration between government crop improvement programs and the private sector;

2. The Commercial seed production/distribution program of the DOA will be refocused towards the provision of basic seed to seed producing enterprises;

3. The private sector will be encouraged to carry out production, processing, distribution and marketing of commercial seed with technical and quality promotion services from the DOA;

4. The private sector will continue to import seeds and planting materials while strictly observing the plant quarantine policies of MADR;

5. A National Seed Development Committee will be formed to help coordinate and develop the seed industry in Sri Lanka;

6. Seed Certification programs will adopt a proactive stance in the promotion of quality seeds. Quality standards attained by the seed industry will lend prestige to the seed industry and will enhance farmer confidence.

3.4 Horticulture

Several reviews of horticultural crops and the horticultural industry were conducted, culminating with the Horticultural Assessment conducted at the beginning of the "extension phase" of the project. This effort led to two specific studies:

- Plan for development of perennial tropical fruits; and
- Plan for development of the horticultural industry in Uva Province.

The study pointed out that the lack of a specialized institution to focus on horticulture has hampered the development of tropical fruit production. The plan for tropical fruits recommended methodologies for selection of priority fruit species. Six sites were identified for concentration of DOA activities in propagation, including establishment of budwood gardens and mother tree orchards.

In addition to the two studies, DARP supported five courses in nursery management and tropical fruit propagation were carried out. The courses included theoretical discussions and practical training. The first course was for DOA technical staff such as budders, grafters and farm managers while the second targeted DOA officers. The next three were for private nurserymen. An awards ceremony was held with all 140 participants, the Honorable Minister, Mr. R. M. Dharamadasa Banda, and the Director of the USAID Mission, Mr. Richard Brown.

The First National Horticultural Exhibition was presented by the Department of Agriculture in July, 1993 near Peradeniya. The exhibition ran for 10 days and drew more than 40,000 visitors each day. Virtually every arm of the Department of Agriculture carried out its role in making this exhibition a major success, getting national attention of the public and policy makers throughout Sri Lanka.

The GSL in its DOA Restructuring Program has created an Institute of Horticulture. It has begun to function and DARP has successfully seen its objectives realized in this sphere.

3.5 Management Capabilities

DARP was conceived as an institutional strengthening project, with development of management systems to focus on inter-divisional coordination in decisions making. In addition, DARP contributed a great deal to automated data handling systems through provision of computers and training in use of various software packages.

3.5.1 Management Systems

Throughout the project, management techniques were periodically discussed with DOA officers. Several DOA professionals received short-term training abroad in the administration of agricultural programs.

A program of merit-based promotion for Extension Division personnel was established along with systems to monitor performance and provide incentives to extension staff. Job descriptions were developed for employees in the Education and Training Division.

The above activities were a prologue to two short-term consultancies on organizational development, leadership and management. The first included interviews with 15 top leaders in the DOA and five workshops attended by 130 professionals. These activities led to an identification of the DOA's leadership and management needs. The second consultancy featured a workshop for the Directorate and 20 other top leaders in the Department. This workshop produced a mission statement for the DOA to facilitate departmental policy formulation and guide decision making. Another workshop with leaders of each Division resulted in the development of goals, operational management objectives and a list of concepts for learning modules to be included in the Department's long-term leadership and management training programs.

In 1990, the DOA modified its structure, reducing the number of Divisions. Though helpful, these changes did not solve some of the continuing problems of leadership and decision making, especially related to interdivisional coordination. At the request of the Director of Agriculture, DARP assisted with a training program for 24 DOA executives and senior officers over a one year period. This group participated in three training needs assessments and workshops which focused on individual management skills and DOA organizational issues. One of the exercises asked the participants to define their vision of the DOA in the year 2010. A selection of results follows:

Primary DOA Clients:	Producers of staple foods Export oriented farmers Processors Consumers and general public Private sector organizations Farmer organizations
DOA Services:	Research Production, processing and value additional technology Regulatory functions Environmental protection Information services Training Planning, monitoring and evaluation of agricultural programs

While these workshops were being conducted, the Minister of Agricultural Development and Research announced plans for a major restructuring of the DOA into commodity-oriented units, as opposed to the current functional breakdown of divisions. A Management and Organization Development Task Force (MODTF), appointed by the Director from the group of participants, reviewed some of the proposals for restructuring and provided comments and guidance. The DOA restructuring process has been implemented with effect from the beginning of 1994.

3.5.2 Data Management Systems

Computerization and data management gradually became a project theme for institutional strengthening in most units in the DOA. In the original project phase, workshops provided training in data management and microcomputer software technology to 97 professionals, while 20 officers received personal instruction. The first computer network in the DOA was installed at the Seed Division with DARP assistance in March, 1990. A computerized payroll system was developed and put into operation after an initial assessment and specification of appropriate equipment and software. During the extension phase, more than 200 officers received training through local institutions. Specific improvements related to statistical data handling and analysis and desk top publishing were discussed above.

4. CURRENT STATUS AND OUTSTANDING ISSUES

The outputs and achievements of the DAR Project have contributed to three overall objectives:

- diversification of crop production;
- institutional strengthening; and
- seed industry development.

End of project status and outstanding issues are discussed under these three headings along with additional comments regarding impacts that may be realized over time.

4.1 Crop Diversification

4.1.1 Crop Priorities

The results of the brief commodity assessment (Annex A) demonstrate that the process of crop diversification is taking hold in Sri Lanka. Progress in grain crops has been limited, but significant achievements are apparent in higher value crops. The overall value of production of crops considered as initial targets for diversification increased by over US$ 4 million per year from 1981 to 1992.

Impacts from the DARP project supported development of GSL institutional capacity will only be seen over time. Impact of agricultural research can be far-reaching but requires considerable time to be disseminated and to yield benefits.

There have, however, been some initial impacts on OFC production during the project life. Based on the project final report the most significant changes were in annual production of chillies and onions which increased by 1,160 mt. and 5,739 mt respectively between 1981 and 1992. This increase is worth approximately US $4.5 million per year. Based on average yields and cost of cultivation this would equate to approximately 1,673 ha. of production of these crops and annual increases of approximately 830 person years of labor; $1.23 million in investment; and $0.91 million farmer return to labor.

Currently, half the value of all food crops under the responsibility of the DOA can be attributed to fruits and vegetables; about 40 percent to paddy (rice); and only 10 percent to other grains.

For many years, crop selection for diversification followed the import substitution or national self sufficiency policies in place at the time.

In recent months, the project and the DOA have moved to adapt institutional and operational mechanisms to support income generating activities of Sri Lankan farmers. Expansion of DOA efforts from an import substitution approach to market oriented agricultural systems include: 1) developing and improving agricultural technologies aimed at existing markets; 2) improving crop genetic resources, particularly for under exploited crops, targeted at existing domestic and export markets; 3) developing plant quarantine procedures which facilitate the import of genetic resources and export of agricultural products; 5) diversifying the DOA client base from "the farmer" to the actors in the agricultural and food system network; and 5) changing the institutional orientation of the department towards a more broadly defined client base.

4.1.2 Client Diversification

It is no longer sufficient to identify the DOA client as "the farmer." To serve the needs of commercial agriculture, the DOA must take a broader view of clients. Possible client groups that may require support through DOA services are:

- General public;
- Rural population;
- Subsistence farmers;
- Commercial farmers;
- Part-time farmers;
- Agricultural enterprises;
- Organized farmer groups;
- Persons engaged in marketing and handling;
- Plant nurserymen and women; and
- Policy makers.

Discussions on these topics were initiated in recent management training exercises under DARP.

4.1.3 Research and Development

Project support to agricultural research has been effectively utilized. Special funding on a competitive grant scheme would be useful for research to meet the needs of specific client groups in the future. Research officers are beginning to consider themselves to be "development officers" rather than merely reporting research findings in their own narrow discipline. Research conducted within the parameters of a clearly defined strategy where officers understand the importance of their work in the context of developing commercial crops and products may be transferred more readily to DOA clients.

The Technoguide has been well received. The list of subscribers needs to be maintained, and updates should be made periodically.

4.1.4 Field Programs and Media Support

Data suggest that upland areas during Maha season are being fully utilized, and that cropping on paddy lands during Yala is increasing. Judging from feedback from field days organized by provincial staff, crop demonstrations seem to have an impact on farmers. However, the planning and setting priorities for research, extension and demonstrations needs to become more of an interactive process, requiring the support and commitment of DOA officers. Follow-up monitoring of farmer adoption and reporting experiences is badly needed in order to modify and improve programs. Without an efficient information exchange and management system to guide extension work, field programs tend to become routine and repetitive, and may fail to address real needs of the client.

Mass media programs are being carried out very effectively and skillfully as planned. Centering activities around "campaigns" gave focus to efforts, and linked mass media with other on-going field activities. Systematic monitoring will be needed to tailor messages and balance the use of different media. Impact assessments are essential.

4.1.5 Horticultural Development

Improved plant materials have been imported and established on DOA farms and research stations. The primary concern should now be to identify ways of getting this material channeled through nurserymen to the grower. Specialized services like training in nursery management and propagation of perennial fruits are needed.

The undoubted success of the National Horticultural Exhibition suggests that the DOA might consider establishing a permanent exhibition site and appointing staff to organize and hold events of this kind. With such an infrastructure, the DOA could support exhibitions in other disciplines besides horticulture.

4.2 Seed Industry Development

Over 15 seed enterprises are now operating in the country, producing between 25 and 50 percent of all locally-produced seed. These enterprises have been formed during the past year, and more are being formed. With proper support, the number of seed enterprises could double or triple in the next two to three years. It will take several years before these enterprises gain sufficient experience to become mature concerns, capable of providing high quality seed and promoting its utilization among farmers. Further DOA and USAID support is highly justified in the development of this industry.

A national seed market study was completed under the DAR Project. Additional specific studies will be needed as enterprises diversify into more crops and as they require more specific information about potential clients and markets.

A seed industry association will be increasingly important to support the developing seed trade in Sri Lanka. A federation may eventually emerge among three private groups: seed enterprises; nurserymen; and seed importers. Assistance to these organizations is an appropriate target for USAID support.

A national committee with equal representation of public and private sectors is expected to be formed to help coordinate the growth of the seed industry and consider policy changes that would promote the production, marketing, and utilization of quality seed by farmers.

4.3 Institutional Strengthening

4.3.1 Human Resources Development

The extensive participant training program under the DARP project have significantly increased the capacity of the organization to carry out complex technical tasks in research, extension, seed development, plant quarantine, and many other areas.

The DOA must continue to evaluate its human resource development needs and develop a training plan with clear priorities. As the DOA redefines its client groups and objectives, there will likely be a number of new and valid training objectives to meet client needs.
Efforts to link long-term DOA training with degree programs in local universities were not as successful as envisaged. Attempts to conduct a portion of degree programs through local universities should be carefully planned and agreed upon in advance. The attitudes of participants and the DOA toward obtaining degrees from local universities should be considered reviewed in planning these programs.

4.3.2 Data Handling and Computerization

Efforts in this area were not originally included in the DARP project design but evolved over time with changing project and DOA requirements. DARP provided equipment and a great deal of local training in basic computer operations. An improved payroll program is now operational.

The need to continue to update equipment, software, and "liveware" are never ending. Still more equipment will be needed in the future to keep up with the demands of a more varied clientele.

4.3.3 Project Management

Project management on the part of the DOA consisted primarily of one part-time officer to assist with internal communications between the Director and Deputy Directors, and with the Project staff and USAID. Personnel contributed to planning of activities, monitoring, reporting, and assisting with logistics of implementation.

4.3.4 Management and Leadership

The DOA adopted a useful mission statement developed during a DARP management training workshop. Several senior officers and executives attended courses in management and administration through the participant training program in the USA and elsewhere. More recently a group of senior officers participated in a series of three week-long management training workshops.

The Honorable Minster of Agricultural Development and Research announced plans for a restructuring of the institution, primarily by combining functional divisions and organizing commodity-focused institutes. This has taken place since beginning of 1994.

4.4 Follow-up on DARP Impacts

As shown in the commodity assessment referred to earlier, the process of crop diversification did not begin with DARP, but instead has been accelerated by the Project through a stronger DOA. Many of the impacts of the Project will be seen only in future years. Future impacts that could be monitored are:

Crop diversification: Expanding cultivation of crops such as chili, onion and other vegetables is to be expected. Expansion of greengram might occur with the expansion of cultivation in the Meda season. Other grains such as maize and soybean can be increased with coordinated efforts to link growers with markets. The Department should routinely publish statistical series related to important crops, including fruits and ornamental plants, and should include indicators of crop diversification in regular reports.

Adoption of technology: The DOA should be particularly concerned about following through with its various client groups to measure the degree to which new technology is adopted and the problems farmers and other clients have experienced and to obtain feedback on and possible modifications that might be worth exploring. Baseline information is available, including not only cropping patterns, but many aspects of technology applied in growing selected crops. A handful of key technology interventions developed and recommended by the DOA could be identified and monitored.

Utilization of personnel trained under the Project: Monitoring could be done internally by the DOA. Such information would be useful in formulating new plans and priorities for future training.

Germplasm introduction and distribution: An on-going record and report of the introductions of germplasm and of the distribution of plant materials is useful. This would serve as a means of advising nurserymen and others about the availability of plant materials in the country, and demonstrate the amounts of these materials that are getting out to the private sector.

5. SUSTAINABILITY OF DARP EFFORTS

DARP Initiatives

DARP was fundamentally a public sector agricultural institutional strengthening activity with a substantive focus on diversification to subsidiary food crops through research, technology transfer and seed production. The DOA's institutional capacity has increased significantly through LT degree training, management training, the introduction and use of computerization in both administrative and technical areas, acquisition of germplasm, construction of seed warehouses and provision of seed processing equipment, and advisory services to the private sector. This capacity is now established and functional. It will need periodic upgrading and maintenance, which are within the capacity of DOA with such minor assistance as it may obtain from USAID and other donors.

The nature of focus of DARP's substantive contributions changed over the LOP in response to GSL and USG policies and better understanding of the constraints which the project was intended to resolve. In essence, the crop focus shifted from low value subsidiary food crops to higher value fruits and vegetables, seed production began changing from public sector production to the private sector, and technology transfer shifting from an extension agent approach to a focus on mass communications. Although the ratio of rice research to non-rice research has not changed, the increase in total research has led to expansion of research on a wide array of non-rice commodities. The increase in non-rice research was expected to result in a shift in the ratio of rice to non-rice research. Rice research increased due to continued GSL and DOA emphasis on rice production. This probably did not directly affect the diversified crop work, except that the overall DOA work program became larger and more difficult to manage. DOA re-organization addresses this problem. DOA was a full participant in these decisions, so that the current content of the DARP reflects DOA's continuing concerns.

DARP initiatives in policy issues on seed privatization and plant quarantine will facilitate a higher level of private sector involvement. It can be concluded that the substance of the DARP, as evolved, will be sustained.

DOA's Capacity to function without DARP resources

The DOA is a well-established agricultural department, with a staff of 6,700 and a recurrent costs budget from national sources of approximately Rs.175 million (about US $4 million). Its domestic budget for recurrent expenditures is heavily dedicated (about 80 percent) to personnel emoluments. Much of the remainder is dedicated to other fixed costs, e.g., rents, utilities, maintenance. The organization has come to rely on donor resources, including DARP, for relatively modest resources to provide flexibility in operations. The DARP Special Projects Funds was such a mechanism. This issue has been recognised by the GSL planners for future adjustments in budgeting for the DOA.

Most of the foreign exchange costs currently met by DARP (TA training etc.,) will continue to be provided by WB under an ongoing research project and a new extension project, by JICA for plant genetic resources, and by other donors. DARP has led the way for agri-business support through projects such as Agro-Enterprise Project. These projects will continue momentum of programs. In addition, DOA re-organization is an initial step in adjusting DOA programs to become more effective at using more restricted funding that will be available in the future.

6. ASSUMPTIONS AND LESSONS LEARNED

A. Initial Design Assumptions were Questionable

The following design assumptions appear not to have held completely true:

- Emphasis on achieving sustainability in rice was preventing attention to other crops. The DOA continued an extensive rice research program, while greatly expanding the work on OFC's and horticulture under DARP. There was no major shift of resources from rice to other crops.

- Lack of effective technology was the major factor limiting production of subsidiary food crops. In addition to poor technology which limited production, low profitability, derived from market demand and organization was a critical factor and one which limits potential expansion of some of the lower value OFC's.

- The T&V extension system was going to provide adequate technology transfer services. The T&V system was initially effective, but proved costly and unsustainable. The World Bank Agricultural Extension Project provided funding for the extension systems, but after completion of the project the GSL was not able to sustain the costs and momentum of the program and the extension system broke down. DARP was able to address this breakdown and introduce a mass media approach which was accepted and is being supported under a new World Bank project.

B. Flexibility in Project Implementation is Crucial

This project evolved appropriately to align itself with changing GSL policy (decentralization and increasingly open economy), changing USAID ideology (emphasis on private sector demand rather than public sector supply), and greater understanding of the weakness of some of the design assumptions. As a result, it became a more effective project.

C. Projects can have Undesired Impacts

The outside substantial funding through large, donor-funded agricultural projects tend to help the organizations to set their own agenda and priorities without having to compete for and rely on scarce government funds. Unless adequate emphasis is placed on the needs of ultimate clients, small farmers and commercial farmers projects may not address real needs.

D. Baseline Surveys can be Problematic

Very ambitious baseline surveys are overly complicated and time consuming, analysis comes late, and follow up is not done. What seem to be more useful are simpler periodic appraisals, using purposive sampling techniques and focusing on critical variables - in effect the establishment of a solid, simple monitoring and evaluation system. This was not done systematically under DARP but could have been used effectively for monitoring impacts. In fact, a large amount of data was available related to DARP impacts or potential impacts on OFC production, but it was not comparable over the life of project.

7. EVALUATION AND AUDIT

A. Evaluation:

All major recommendations of the First Evaluation ending September 1987, were implemented. These included improvements to participant training; establishment of a Special Project Fund and a Discretionary fund to assists TA team to conduct project activities and a management information system and workshops.

The Second Interim Evaluation in May 1989 recommended the extension of the project, preparation of a PP Supplement, adjustments and increases in relevant TA, an action plan on seed restructuring and expediting of commodity procurement. These were implemented along with the proposals for an extension of project adapting itself to new conditions.

The Final Evaluation was completed in May 1993, three months prior to the PACD. It recommended continued support for seed enterprise development, linkages with the U.S. scientific community, continued engagement in monitoring impacts, establishment of a funding process for research and support to private sector in agricultural development.

These were addressed to the extent possible. Support to the GSL is being provided through other USAID projects like Agro-Enterprises, Mahaweli Agriculture and Rural Development Project and the PL-480 programs.

Evaluation action recommendation sheets are attached as Annex "D." All recommendations have been closed.

B. Audits:

A complete Project Audit by RIG/Singapore was conducted (ref. Audit Report 5-383-91-01 of January 31, 1991). All thirteen recommendations have been resolved and closed. Subsequent recommendations by Mission Auditors on Participant Training and Construction too have been resolved.

The project was also subject to an audit of Host Country Contribution (HCC) in March 1993. Although the audit identified the project as one for which Host Country Contribution (HCC) reporting requirements were not established, the project regularly received GSL Host Country Contribution reports and required level of Host Country Contribution was provided.

No audit recommendations are outstanding.

8. FINANCIAL PERFORMANCE

Project Financial Status is reflected below: There are no unresolved financial issues.

A. The Project Financial Status as of June 15, 1994 is as follows:

Category	Obligation	Earmarks	Commitments	Pipeline
Grant	$11,100,000	$11,096,713	$11,096,713	74,483
Loan	$ 3,197,437	$ 3,197,436	$ 3,197,436	-

The terminal disbursement date of the project is March 31, 1994. Unutilized funds may be de-obligated.

B. Host Country Contributions:

Host Country Contributions were fully met. As of September 1993, GSL/DOA has made a total contribution of Rs.180 million which is equivalent to US $6,725 million (Exchange rate US $ = Rs.27/-).

HCC Agreed	$ 6,700,000	Target as per LOP completed	$ 6,700,000
Actual HCC Reported	$ 6,745,000	CTR HCC Verified	$ 6,725,000

E:\DARP-CLO.AA
July 29, 1994

COMMODITY ASSESSMENT

This brief assessment provides an overview of production trends in alternative promoted by the DAR Project. It then goes on to estimate the overall impact of the project. Some of the conclusions cited in the main report will draw upon the information presented here.

OTHER FIELD CROPS

For the first several years of the DAR Project, efforts were centered around crop diversification into other field crops (OFCs). OFCs, as defined in Sri Lanka, included crops that might be regarded as field crops, like maize and green gram (mung bean) and others that would normally be categorized as vegetables, such as onion and chilli. Thus, the OFC category refers to very intensively produced crops, such as potato (which could also be regarded as a vegetable here due to the nature of its cultivation and high value) and very extensive crops such as sesame (locally known as gingelly). In this section, only field crops are considered. Onion, chilli and potato are classified as vegetables and are included in the following section.

The table below lists field crops other than paddy in order of importance according to value of production.

Major Field Crops by Value of Production - 1989/90

OTHER FIELD CROPS	EXTENT (ha.)	PRODUCTION (m.t.)	PRICE (Rs./m.t.)	VALUE (Rs.'000)
Green Gram	34,000	26,500	28,400	752.6
Sweet Potato	6,500	60,000	9,400	564.0
Cowpea	27,000	21,600	23,000	496.8
Maize	41,300	45,300	9,250	419.0
Groundnut	9,000	8,200	20,000	164.0
Gingelly	16,500	8,500	17,000	144.5
Kurakkan	8,000	6,800	17,000	115.6
Soybean	5,800	5,200	18,000	93.6
Blackgram	7,700	3,700	17,500	64.8

Source: *Division of Agricultural Economics & Planning (DAEP), Dept. of Agriculture*

Insufficient time series data was available on sweet potato for it to be included. Five more OFCs were dropped from this presentation due to their low overall economic importance. They were groundnut (peanut), sesame (gingelly), finger millet (kurakkan), soybean, and blackgram. The ones remaining are:

* Green Gram
* Cowpea
* Maize

A brief overview of each of the crops listed above is given in the following sections.

Green Gram and Cowpea

These crops, and others such as pigeon pea, are usually considered to be grown as substitutes for lentils which are imported in a hulled and split form known as dhal. Lentil dhal, commonly referred to as Mysore dhal, is widely consumed as a curry. The production of green gram (mung bean) and cowpea surged after import restrictions on dhal were put into place in the late 1970s. The table below demonstrates that cowpea production especially rose between 1976 and 1981.

Local Production of Green Gram and Cowpea

YEAR	GREEN GRAM ('000 m.t.)	COWPEA ('000 m.t.)
1976	5	12
1981	19	39
1986	17	17
1991	36	20

By 1986, about the beginning of the DAR Project, cowpea production had declined to its current levels, around 20,000 metric tons per year. From 1986 to the present, however, local production of green gram has risen to fill the void. Green gram demands a higher price in the local market than cowpea (usually 40% higher or more at the farm gate), while yields of the two crops are similar. Green gram yields have seen some ups and downs, but have improved significantly during the last 8 years.

Both crops are grown mostly on highland soils during Maha season. Production during Yala is increasing, by planting on paddy lands in places where irrigation water is insufficient for a crop of paddy. Therefore, expanding area of these crops has not been in competition with growing of paddy in either season, It is apparent, however, that the two crops do compete with each other for land and other resources. Farmers likely consider growing either cowpea or green gram on a given parcel of land.

Green gram cultivation is also being promoted as a sandwich crop after Maha, making use of residual moisture and fertility after a crop of paddy. This is referred to as the Meda season. It is believed that with continued promotion, the Meda season can become important, perhaps up to the tens of thousands of hectares.

Maize

The primary market for maize is as an ingredient in feed for the expanding poultry industry in the country. Most maize used in the local feed milling industry is imported. Therefore, increased production of this crop is also of interest for import substitution.

The majority of maize production in Sri Lanka is found in a belt running along the eastern portion of the country, from the North Central Province to Southern Province. It is grown almost exclusively during Maha season on highland areas. Because of the place this crop takes in the farming system-- virtually covering land with an extensive crop and applying little labor or other inputs-- yields have been low and have not improved over the years. Area planted, however, increases at about 1,000 hectares per year, undoubtedly associated with the opening of new lands throughout many of the remote areas on the eastern side of the country. Around 45,000 hectares are grown each year, producing about 1 metric ton per hectare.

Marketing and transportation have been costly because the point of delivery to the main feed miller is located across the island in Colombo. Therefore, farm gate price is low, making this crop even less attractive to farmers.

Although research results show that yields of 3 to 4 tons or more are commercially feasible, it appears that farmers who have the capacity to intensify cultivation can choose other crops which would provide even more income.

HORTICULTURAL CROPS

The DAR Project has assisted with the development of several horticultural crops, including fruits, vegetables and ornamental plants. This effort gained momentum over time, and was not included in the impact tracking system of the project. Information is available on several vegetable crops starting only in 1985. Data on fruit production can be found, but is thought to be unreliable. Data on the ornamentals industry is not routinely gathered and reported, but instead exists only in specific studies which are not comprehensive in nature.

The table on the following page provides a glimpse of horticultural crops that fall under the DOA. Crops in each category are listed in order according to their estimated gross value.

Sufficient time series data is available only for a few of these crops. The following were singled out for more detailed presentation.

* Potato
* Chilli
* Red Onion
* Big Onion

Potato

Potato is widely consumed in Sri Lanka, and importation of consumption potato is prohibited. Local production has been restricted primarily to the up-country, where land is scarce and costly. Therefore, potato price is very high in Sri Lanka compared to other countries. Without the ban, there would certainly be a large quantity of potatoes brought into the country. Therefore, promotion of this crop also is in the category of import substitution.

Total area planted-- total of both seasons-- was around 3,000 hectares during the 1970s, but expanded to over 6,000 hectares by 1983. It then leveled off to between 6,000 and 8,000 hectares during the past 10 years. Yields are around 13 metric tons per hectare. The troubled Northern region of the country used to produce an important amount of potato, but current production reported from those areas is now very low.

Potato seed free of disease has been a limiting factor to improvement of yields. To be kept free of virus diseases, seed would ideally be grown from material propagated in screenhouses, and then multiplied in the field at very high altitude. Screenhouse capacity is currently insufficient, and land for multiplication naturally becomes more scarce and [illegible]ly as elevations rise. Consequently, clean seed potato is not available in sufficient quantities and demands a high price even over the already high price of consumption potato.

Besides increasing yields in the cup-country, it is thought that this crop may in the future be grown in other parts of the country. There are also proposals to open the door to imports which would be less expensive for the consumer. It can be argued that up-country farmers can grow alternative high value vegetables and fruit crops, and that reduction of potato cultivation would ease pressure on the up-country physical environment.

Chilli

Chilli is a very important crop to Sri Lanka, and widely consumed. Dry chilli is ground and included in curries. Green chillies are also consumed, along with a larger chilli pepper called capsicum. Production of this crop increased gradually over the past 25 years, due in large part to increases in yield. The North and East has been an important producer, but reports from this region show marked highs and lows since the outbreak of civil disturbances.

Chilli was one mainly a Maha season crop, but production in Yala season has risen dramatically. It is grown about equally in Maha and Yala seasons today, but Yala season production continues to expand more than that of Maha season.

The table below demonstrates this change for dry chilli in the years leading up to the DAR Project and during the project.

Extent, Production and Average Yields of Dry Chilli
(Two Selected Periods)

	Maha Season		Yala Season	
	1981-85	1986-92	1981-85	1986-92
Extent (ha)	15,226	16,149	13,230	16,742
Production (mt)	9,553	12,450	15,853	20,634
Average Yield (mt/ha)	627	771	1,198	1,233

Yields are much higher during Yala season when the crop is grown mostly on low-lying paddy lands.

Onion

There are two distinct kinds of onion grown in the country, called red onion and big onion. Red onion or shallots are grown from bulbs, whereas big onion is grown from seed. The propagation of big onion therefore requires two season, one for planting seed and producing bulbs for consumption. In the other season, selected bulbs are planted for producing seed. Most seed, however, is imported at present.

Both onions are widely consumed. The smaller red onion is more pungent, and is generally preferred. However, when big onion is scarce, its price actually goes higher than that of red onion, showing that some consumers prefer big onion. Since big onion has traditionally been imported, it is possible that urban consumers-- the ones with access to centrally located markets-- have become accustomed to it. Preparing foods with the larger onion may also be more convenient for the urban housewife. In practice, both onions seem to be nearly perfect substitutes for each other in the market place.

Red onion was predominately produced in the Northern Province, or more specifically the Jaffna peninsula. Since the disturbances in that region have interrupted supplies, production migrated into the Kalpitiya peninsula of the Puttalam District. More recently, production has increased in Ratnapura District and elsewhere. During the last three years, production in the rest of the country has been greater than that of the North.

Big onion production was of little significance until recently. During the past 3-4 years however, production has soared-- from a level of about 2,000 tons in 1985, to nearly 10,000 in 1989 to over 27,000 tons in 1992. The dramatic rise in production came about largely by increasing area cultivated, but yields of both red and big onion have also improved gradually.

Red onion is grown throughout the year. Fortunately, production is tending more toward Maha season as it shifts to new regions of the country. Big onion production has been heavily centrated in Yala season, flooding the market for a period of about two months.

MEASURABLE DARP IMPACTS

Major DARP impacts were in development of institutional capacity and reform of policies relating to private sector seed trade, DOA organization, mass media extension and priority to work on diversified crops. Most impacts on production will come later, but some initial impacts are described in this Annex.

Clarity of purpose is crucial in order to define meaningful impact indicators. One major purpose of the DAR Project was to increase production of crops other than paddy. The idea was to diversify cropping patterns, not necessarily to increase yields. Therefore, production-- not area planted nor yields-- is used as the primary impact indicator.

Increases in yields could be important for some crops, but was not the central theme in most cases. In fact, for some crops such as red onion, expansion to other areas-- outside of Jaffna and Kalpitiya in this case-- will cause a decrease in the national average yield. Many alternative crops had already been shown to be highly profitable for farmers. Therefore, the challenge was not to increase yields and profitability, but instead to increase production.

Impact was estimated for selected crops from 1981 to 1992. A time trend showing yearly increases (or decrease) in production of each of these crops was estimated. First however, the North and East were removed from the analysis. DOA does indeed carry on much of its work in these areas, however production and supply systems have been severely interrupted, causing up and down swings in production levels reported from 1983 onward. The North and East are major producers of red onion, chilli, and maize, three important crops promoted by the project.

Time trends were run on seven crops. Five showed significant increases in production (see table below) and one a significant decrease during the reference period. Only in the case of potato was the relationship of production to time insignificant. The negative coefficient corresponding to cowpea implies that this crop has been partially displaced with green gram and perhaps others such as chilli during this period.

Time Trends in Production of Selected Major Crops Promoted by DARP, 1981-1992

	Annual Change in Production (mt/yr)	Farm Gate Price (Rs./kg.)	Total Value (Rs.'000)
Green Gram	1276	19.13	24,410
Cowpea	-1809	13.03	(24,060)
Maize	1273	5.54	7,052
Chilli	1160	95.07	111,012
Red Onion	3450	20.27	69,932
Big Onion	2289	20.27	46,398
TOTAL			**234,744**

Note: Based on time trends from 1981 to 1992, production levels. Farm gate price is from 1991/2 Maha season. Price reported for red onion was also used for big onion.

Interestingly none of these crops seem to compete for land with paddy. Area planted to paddy in Maha season has declined according to Census and Statistics data during the 12 year period. However, none of the crops are grown on paddy lands during Maha season. Instead the non-paddy crops that are grown in Maha are planted on highlands, as paddy lands are flooded at that time of year. Paddy extent cultivated has increased in Yala season. Here again, the chances of competition would be small in any case, as alternate crops are usually planted only when water is insufficient to plant paddy. Therefore, it seems unlikely that green gram, big onion, chilli, or red onion are taking land away from paddy.

Naturally the gross value of the additional production is not a net gain to the country. Some cost of production are made up of inputs which are imported. But, most of the value of production is attributable to farmer's labor and land. Generally we can say that the net increase in local production each year due to crop diversification is at least 4 million dollars.

The increase (and decrease in production represent additional volumes available each year throughout the 12-year period. The net gain of four million U.S. dollars each year is therefore cumulative over time.

TECHNICAL ASSISTANCE LEVEL OF EFFORT, October 1985-August 1993

	ORIGINAL PROJECT		EXTENSION PHASE	GRAND TOTAL
GRAND TOTAL	265.75		109	374.75
Long-term Technical Assistance SUBTOTAL	188.5		41	229.5
Development Alternatives, Inc. (DAI)				
Selleck	61	Pattie	34	
Henderson	18	Reusche	7	
Reusche	49			
Tickoo	12			
Oregon State University (OSU)				
Morris	24.5			
Navarro	24			
Short-term Technical Assistance SUBTOTAL	77.25		68	145.25
Development Alternatives, Inc. (DAI)				
Wolf	3	Paroda	0.5	
Erickson	5.5	Hatfield	2	
Classen	6	Kuhnle	12	
Alex	2	Marlowe	1.5	
Henderson	2	Santacroce	2	
Nott	5.75	Chapman	1.5	
Haws	5.25	Hurelbrink	2.5	
Douglas	1.25	Marlowe	2	
Tickoo	7.25	Ross	2	
Malone	2.75			
Panditha	3			
Robinson	1.25			
Roberts	1			
Gajanayake	0.75			
Oregon State University (OSU)				
Morris	4.5	Nickel	4	
Crabtree	2	Williams	1	
Dhillon	1.5	Duncan	1.5	
Vollmer	0.5	Martin	1	
Warkentin	1	Mannion	1.5	
Weiser	0.75	Price	1.5	
Youngberg	0.5			
Resources Development Consultants (RDC)				
Fernando	4	Samarakoon	2.5	
Abeygunawardane	3.5	Albert	1.5	
Zuhair	7	Pinto	1.5	
		Perera	2.5	
		deSilva	2	
		Rajapakse	2	
		Premaratne	2	
		Pinto	3.5	
		Jayaratne	4	
World Education				
Kahler	0.75	Department of Primary Industries (DPI)		
		Nissen	1.5	
Mississippi State Univ. (MSU)				
Couvillion	2.5	Training Resources Group (TRG)		
		TRG		
Oklahoma State University		Jennings	2.5	
Li	1	Surles	3	
Stoeker	1	Abhayagoonaward	3	

Additional Collaborative Assistance associated with DARP

Stewart	6.00	
Gleason	10.00	
Davis	2.50	
Ray	0.75	
Lubigan	10.00	
Sattel		4.00
Tinsley	0.75	

SUMMARY OF TECHNICAL ASSIGNMENTS

Long-term Assignments

Bill Selleck/Preston S. Pattie

The Chief of Party was responsible for representing DAI and the contractor group in Sri Lanka. He oversaw all long-term and short-term technical assistance as well as participant training and management of special project funds. During the original Project phase, Dr Selleck contributed technical to agronomic research. During the extension phase, Dr Pattie helped prepare studies in agricultural economics.

D W Henderson

Conducted research in soil and water management for growing SFCs. Helped identify the technology to grow SFCs in Yala season, rather than only in rainfed areas in Maha season. This opened vast opportunities for diversification without affecting paddy production.

Gary Reusche

The long-term seeds advisor helped establish the Seed Development Unit for promoting private sector development. Seed imports were liberalized and he assisted with establishment of a network of private seed dealers. Policies on reducing the number of state seed farms were emphasized.

J L Tickoo

Conducted research in breeding legume crops--cowpea, mungbean (green gram), pigeon pea, chickpea, lentil, soybean and groundnut. Also contributed to research and extension methodologies.

R A Morris

Conducted research in soil fertility, especially related to long-term phosphorus fertilizer management and cycling in alley cropping systems. Helped determine effective rainfall needed for dry zone agriculture. Assisted research office in data analysis and interpretation of results. Contributed to farming systems research methodologies.

Louis Navarro

Conducted agricultural economic studies summarizing the performance of various OFCs over the past two decades. Most studies were based on existing time series data covering the past two decades. Assisted with baseline survey on SFC cultivation. Formulated policies to guide diversification activities.

Short-term Assignments

James M Wolf

Prepared water management research plan for Kirini Oya project area and evaluated water management research programs in research stations.

Ian J Stewart/G S Dhillon

Stewart analyzed 100 years of agro-climatic data for the two major growing seasons. Dhillon conducted analyses pertaining to agrological conditions for SFCs in the dry zone, recommended crops and cultivation practices. Designed and established demonstration plots and identified methods for estimating crop yields.

J F Alex/Ian J Tinsley

Alex formulated recommendations on integrated pest management (IPM) in SFCs and weed control research programs. Tinsley addressed problems associated with pesticide poisoning and environmental effects.

Garvin Crabtree/Lubigan

Crabtree helped develop arrangements for joint training by local universities with Oregon State University. Held a workshop and formulated recommendations on weed control. Lubigan assisted with a survey on weed control and conducted trails on control of Cyprus rotundus.

Gladys Nott

Presented workshop on Farming Systems Research/Extension (FSR/E).

Bob Davis

In collaboration with the NIFTAL Project, developed a proposal for production of Rhizobia in Sri Lanka for inoculation of legume seed.

L Dale Haws/Howard E Ray
Darryl Kuhnle/Tilak Jayaratne

Haws and Ray prepared recommendations for use of mass media technology in extension communications. Kuhnle helped make the mass media extension system become operational. He and Jayaratne provided on-the-job training.

Johnny Douglas

A team of persons headed by Douglas developed seed policy recommendations for Sri Lanka and laid out a program for development of the seed industry.

Carl E Classen/Covillion/Piyasena Abeygoonawardena/Benjamin Hatfield

Classen examined seed distribution methods of DOA. Couvillion focussed on seed marketing including costs of production. Abeygoonawardena conducted economic analyses of seed production programs on selected government seed farms. Hatfield presented workshops to train seed farm managers in business practices.

Kahler/Jaya Gajanayake/Violet M Malone

Kahler evaluated progress in training the trainers of the in-service centers. Malone conducted 1) training of trainers in extension, 2) how to present research results, and 3) conflict management among senior executives.

Jerry Robinson
Lee Jennings/Jane Surles/Piyadasa Abhayagoonawardhana

Robinson helped assess the status of DOA programs and led a workshop to develop a vision for the future. Later the three-person team led by Jennings trained senior officials in management skills through a three-workshop series spanning an entire year. This activity was useful in helping the Department adjust to change as it embarked on a major institutional restructuring.

Robin B Erickson/Zuhair

Erickson carried out data analysis and prepared report on baseline survey on SFC cultivation. Zuhair was economics research assistant.

Elton Li/Art Stoeker

Reviewed statistical procedures and recommended software packages for agricultural economic analyses. Conducted an assessment and formulated recommendations for computer applications in various units under the Department.

Gleason/Price

Gleason conducted economic analyses to promote soybean production. Price reviewed the progress and directions and crop diversification and provided guidance on future directions.

Paroda

Reviewed the agenda of the Plant Genetics Resources Center and provided recommendations on its future activities.

John Nickel

Assisted in the preparation of the Five-year Research Strategy Plan. The Plan defines priorities for agricultural research and addresses operational issues related to consolidation of personnel into more workable units.

C J Weiser/Ray William Duncan/Frank Martin/Harry Mannion

Carried out horticultural reviews. Weiser did an initial review of horticultural crops, including comments on postharvest technology. Willian focused on up-country, temporate climate crops. The three-person team conducted an overall horticultural assessment. Both assignments helped guide DARP activities into the horticultural field during its extension phase.

George Marlowe/Albert/Pinto

Conducted a review of the varietal release system.

M L Panditha

Provided technical guidance on breeding methods in vegetable crops.

R L de Silva, Santacroce, Jayasiri Remaratne, Rohan Rajapakse

Conducted a review of plant quarantine systems and recommended improvements. Policies were adopted and put into practice.

Samarakoon

Developed and supported a computerized payroll program.

Keith Chapman/Rufus Pinto/Robert Nissen

Developed a plan of action for establishment of budwood gardens of perennial tropical fruits and distribution of material to nurserymen/women. Carried through with training of nurserymen/women.

Long Term Training - Original and Extension Phase Tracking Record

	Name	Current position	Station
PhD			
1	WGD Fernando	Left Dept	
2	DSDZ Abeysiriward	RO	A'pelessa
3	HM de Alwis	Left Dept	
4	GAC de Silva	Ag. Economist	Peradeniya
5	LG Herat	RO	Bandarawela
6	L Amerasnghe	RO	Maha Illup.
MSc			
7	H Lansakkara	Left Dept	
8	TDW Siriwardena	RO	Gannoruwa
9	WP Madawanarachch	ADA	Peradeniya
10	GAMS Emitiyagoda	ADA Ext	Peradeniya
11	L Hathurusinghe	AO	Colombo
12	V Pemajayantha	Left Dept	
13	A Lecamwasam	DDR	A'ganwila
14	NPU Kuruppu	RO	Makandura
15	WHD Kularatne	Ag. Economist	Maha Illup.
16	JDKM Jayawardena	RO	Maha Illup.
17	K Subramaniam	Seg AO	N&E Province
18	GAW Wijesekera	RO	Gannoruwa
19	RM Nandasiri	ADA	A'pura
20	PBL Premnath	Seg AO	N Cent Prov
21	ST Dassanayake	ADA	Peradeniya
22	KE Karunathileke	ADA	Peradeniya
23	KWSD Abeyratne	Further stud.	USA
24	EMG Edirisinghe	ADA	Kegalle
25	APR Jayasinghe	ADA	Peradeniya
26	G Balasuriya	Ag. Economist	Peradeniya
27	H Hemaratne	Ag. Economist	Bombuwela
28	RA Wijesena	Asst Sec	Kegalle
29	H Kularatne	ADA	Kundasale
30	SGR de Silva	Seed Cert Off	Gannoruwa
31	GM Chandrasena	ADA	Gannoruwa
32	WSC Perera	ADA	Getambe
33	H Rajapakse	Left Dept	
34	W Palitha	AO	Kurunegala
35	TA Booso	Lect.AgEng	Kundasale
36	A Jayatileke	ADA	A'pura
37	M A Ariyasinghe	ADA	Puliyankulam
38	MIM Rafeek	Ag. Economist	A'wila
39	S Kanagasunderam	Left Dept	
40	TD Jayaratne	Left Dept	
41	S Kandiah	Left Dept	
42	P Mylvagnam	Left Dept	
43	SC Gunasekera	Librarian	Gannoruwa
44	GDJL Sunil	ADA	Pelwehera
45	MA Wimal	Ag. Engineer	FMRC, MI
46	A Wettasinghe	RO	Peradeniya
47	K Hettiarachchi	RO	Maha Illup.
48	DEDJ Abeysekera	ADA	Maha Illup.
49	KG Sriyapala	Asst Sec	Getambe
50	AHL Somatileke	ADA	Matara
51	K Piyasena	ADA	Peradeniya
52	WMJ Bandara	AO	Bentota
53	SN Jayawardena	RO	Maha Illup.
54	PMN Dayaratne	ADA	Ampara
55	ARM Mahrouf	Ag. Economist	Bandarawela
56	SK Tharamarajah	RO	Bombuwela
57	DPP Jayakody	RO	Makandura
58	I Medagoda	RO	Gannoruwa
59	HU Warnakulsuriya	RO	Gannoruwa

Contd.

Long Term Training

Extension Phase

	In program	USA
60 PAP de Silva	"	"
61 KSU Jayaratne	"	"
62 J Abeygunasekera	"	"
63 I Ariyaratne	"	"
64 EMDSN Ekanayake	"	"
65 GLB Delungahawatte	"	"

SHORT TERM TRAINING - ORIGINAL PHASE (1985 - 1990)

NAME	COURSE	DATE
AM Abeyratne WD Albert SW Seneviratne MD Samarasinghe	Thai Seed Prog. Thailand	Dec 85
WMM Kandegama ST Jayatileke DM Saddhasena	Cowpea, Soyabean Res Prodn, IITA Nigeria	Jan/Feb 86
TB Samarakoon TMJ Bandara	Remote Sensing AIT, Thailand	Jan/Apr 86
RP Mahindapala	Cropping Syst IRRI, Philippines	Feb/Jun 86
RGAS Rajapakse	Rhizobium Tech & Inoc Prod, NIFTAL Bangkok	Mar 86
WMS Gunasekera RSK Keerthisena	Alley Crop Alley Farming IITA, Nigeria	May 86
PS Wijesuriya	Remote Sensing Applicn. New Mexico, USA	Jun/Jly 86
J Kannangara KKG Jayakody WM Bandaranayake	Seed Quality Control & Seed Certification, Philippines	Jun/Sep 86
WMU Weerakoon W Devasiri RD Hendrik DS Haputanthri	Farm Management, IRRI, Philippines	Jly 86
EMWD Ekanayake CMD Dharmasena WT Huruggamuwa	Integrated Pest Mngmt IRRI, Philippines	Jly/Nov 86
H Somapala	Management & Agric Res. WDC, USA	Jly/Sep 86
LB Kumarasinghe	Irrig & Extension CINADCO, Israel	Aug/Sep 86
UKB Doloswala DMPM Dassanayake PCG Jinasena WAMH Banda S Somasuriyam	Farm Water Mngmt AIT, Thailand	Sep/Nov 86
TMA Tennakoon MM Premachandra	Organiz & Mngmt Agric Ext Service, Illinois USA	Sep/Oct 86
H Samaratunga A Palamakumbura	Veg Prod & Research AVRDC, Thailand	Oct/Feb 86
SIMR Abeysekera A Nadarajah M Hulangamuwa MM Jayawardena	Farming Syst, Socio Econ Res Trng, IRRI, Philippines	Oct/Dec 86
AP Bentota SP Bandara DM Gunasekera	Cowpea & Soyabean Course IITA, Nigeria	Oct/Dec 86

SHORT TERM TRAINING - ORIGINAL PHASE (1985 - 1990)

NAME	COURSE	DATE
AKD Perera	Cowpea & Soyabean Prodn IITA, Nigeria	Oct/Dec 86
DSP Kuruppuarachchi RM Karunaratne A Abeysinghe WAK Karunathileke BS Raphael CL Ranasinghe S Wirasinghe W Ratnayake A M de Mel A Nagendram	Irrig & Soil Mngmt VOLCANI, Israel Farming Systems IRRI, Philippines	Oct/Dec 86 Nov 86
EAP Wijesena VC Vidyaratne	Cowpea, Soyabean, Intl Res & Prod, IITA, Nigeria	Jan/Mar 87
RMT Rajapakse	Stats Proced & Computer Applic, IRRI, Phil	Mar/Jun 87
ARM Mahrouf	Proj Planning for Agriculture, WDC	May/Jun 87
SM Sumathipala	Cropping Systems, ICRISAT, India	May/Nov 87
KK Jayasekera CNN Nillegoda	Trop Root Crop Res Prod IITA, Nigeria	May/Jul 87
WN Alwis	Mngmt Agric Organiz. USDA, WDC	May/Jun 87
WL Weerakoon	Sust Agric Role in Green Manure Crops, IRRI, Phil	May 87
S Amarasiri LG Herat	Study Tour LEHRI, Indonesia	May/Jun 87
J Handawela	Sust Agric Role in Green Manure, IRRI, Phil	May 87
SMK Godawita W Wijedasa	Seed Improvement USAD, WDC	Jun/Jly 87
AAB Hafi	Proj Impl Agric Rural Development, WDC	Jly/Aug 87
M Sikurajapathy	Mngmt Agric Res, WDC	Jly/Aug 87
DEF Suraweera GAC de Silva	Familiariz, Socio Econ Res Cropng Syst, IRRI Philippines	Jly 87
LB Mahagedera SKL Fernando	Intl Pest Mngmt IRRI, Philippines	Jly/Nov 87
GR Dharmasena S Weeratunga BM Abeyratne TK Subramanium DI Kommale AA Athapthu	Tech Transfer Course IRRI, Phil	Jly/Oct 87
S Weeraratne EMPB Ekanayake	Mngmt of Training Cent. AIT, Thailand	Jly/Sep 87

SHORT TERM TRAINING - ORIGINAL PHASE (1985 - 1990)

NAME	COURSE	DATE
KP Alwis EJ Ekneligoda	Plant Quarantine WDC	Aug/Sep 87
A Jayatileke	Irrig Water Mngmt	Aug/Oct 87
TA Sooso	IRRI, Phil	
KW Jayasena	Chilli Narrow Leaf Disorder, IRRI, Phil	Sep/Oct 87
K Gamage WMM Gunatileke C Kodithuwakkuarachchi SG Gamage	On Farm Mngmt Trng AIT, Thailand	Sep/Oct 87
TT Ranasinghe	Orgn & Mngmt Agric Ext Syst, Illinois, USA	Sep/Oct 87
GGRUW Somaratne TN Musaffer AG Nandawathie RP Karunapala	Seed Tech Veg Crops UPLB. Phil	Sep/Dec 87
MA Wimal	Procurement & Supply Mngm AAFC, NJ	Oct 87
BG Dayananda CTS Seneviratne MDS Abeyratne	Cowpea Soyabean Res Prod, IITA, Nigeria	Oct/Dec 87
A Hettiarachchi	Tissue Culture Trng AVRDC, Thailand	Oct/Mar 87
JCK Basnayake GAMD Gunaratne	Sweet Potato Breeding AVRDC, Thailand	Oct/Mar 87
N Albert RM Abeyratne Bandara	Farming Syst Socio Econ Res, IRRI, Phil	Oct/Dec 87
J Fernando	IDRC, India	Nov 87
CB Hindagala	Plant Genetic Res IBPGR, India	Nov/Dec 87
G Munasinghe MP Dayananda	Soil & Plant Analysis IITA, Nigeria	Jan/Feb 88
LA Wickremasinghe CD Gangodawila	Soil Consv Conference Thailand	Jan 88
DM Gunasekera N Parajasingham AM Gunasekera T Liyanage BE Piyadasa PLE Pannila	Weed Mngmt IITA, Nigeria	Feb 88
HKDAPS Annakage	Tech Transf, IIRI, Phil	Feb/Apr 88
T Jayawardena N Kanagaratnam AM Dharmasena SW Abeysekera DL Wickremasinghe	Seed Tech IITA, Nigeria	Feb/Mar 88
AM Seneviratne	Alley Farming, IITA, Nigeria	Mar 88
SSG Jyawardena	Symp Biotec Diversity Germpl Preservation, USA	May 88

	...INING - ORIGINAL PHASE (1985 - 1990)	
	...URSE	DATE
HP	Trop Root Crop Res IITA, Nigeria	May/Jly 88
SP GD BV	Seed Improvement Mississippi, USA	May/Jly 88
SW Seneviratne	Seed Improv, Missisp USA	May/Jly 88
NK Atapatthu	Dev Market for Agric Prod, Colorado, USA	Jun/Jly 88
DEF Suraweera	Micro Comp Applic, USA	Jun/Aug 88
B Palarajah KA Ranawana PB Rambukwella	Water Mngmt Arizona, USA	Jly/Aug 88
GG Saparamadu EHJDM Francisco	Plant Quarantine USDA, WDC	Jun/Aug 88
BASS Padmalal	Water Mngmt, USDA, WDC	Jly/Aug 88
K Shanthi Iddagoda R Jaywardena MMP Muthunayake RSB Yaparatne	Planning Rural Services Israel	Aug/Oct 88
GB Navaratne	Monit & Eval of Projects DTCP, Thailand	Aug 88
B Sivakadacham	Plant Pathology, Japan	Aug 88
A Wanigaratne D Wijewardena S Weerasinghe MHJP Fernando WD Albert G Reusche	Seed Tour Thailand, Phil	Aug/Sep 88
N Selvanathan	Irrig Water Mngmt IRRI, Phil	Aug/Oct 88
DB Weeratunga	Org & Mngmt of Agric Ext Syst Illinois, USA	Sep 88
HB Herath	Planning & Mngmt Thailand	Sept 88
MIM Rafeek	Farming Syst, IITA, Nigeria	Sep 88
JPK Abeykoon TMAKB Tennakoon	Seed Tech UPLB, Phil	Sep/Dec 88
PA Samaratunga JATP Gunawardena	Proj Eval Strategy Minnesota, USA	Sep 88
S Karunandarajah HM Ariyaratne	Veg Production AVRDC, Thailand	Oct88/Mar89
ARM Mahrouf	Farming Syst Ext Symp Arkansas, USA	Oct 88
MWMAG Wijesundera R Kandiah RM Dharmadasa	Cowpea, Soyabean Res IITA, Nigeria	Oct/Dec 88

SHORT TERM TRAINING - ORIGINAL PHASE (1985 - 1990)

NAME	COURSE	DATE
N Vignarajah	Farming Syst Res, USA	Oct 88
DN Sirisena	Irrig & Soil Mngmt Israel	Oct/Dec 88
SN Dhanasena DG Kulatunga DJP Nanayakkara KG Karunawathi J Amarasooriya	Mngmt of Rainfed Agric AIT, Thailand	Nov/Dec 88
DB Muthukuda Arachchi	Plant Biotech, Nairobi	Dec 88
AM Abeyratne	Financial Restructng USA	Jan/Feb 89
IHMS Herath	Librarianship, UPLB Philippines	Apr/May 89
KSU Jayaratne	Crop Prod Agron, ICRISAT	May/Nov 89
N Govinna	Seed Marktng Distrbution UPLB, Philippines	Jun/Aug 89
SL Amarasiri	Res Dev, USA	Jun/Jly 89
DMW Dassanayake	Commun & Media Strat, WDC	Jun/Jly 89
SL Weerasena OPK Chandrasiri	Seed Cert, Oregon, USA	Jun/Jly 89
MP Anulawathi S Weralugolla RS Premachandra TE Nandasiri	Planning of Micro Regions, Israel	Jun/Aug 89
DL Siriwardena	Rural Reg Dev, AIT, Thai	Jly 89
JASS Gunawardena BHAC Senanayake	Proj Impl for Agric USDA, WDC	Jly/Aug 89
HA Arulgnanam S Wadhuhewa	Mngmt of Trng Centres AIT, Thailand	Jly/Aug 89
PH Sugathadasa BWH Nandawathi MS Mendis AR Ekanayake RM Jayatileke	Agric Planning CINADCO, Israel	Jly/Sep 89
HMW Banda RB Seneviratne	Radio Prod Dev Communc Media Tech, Thailand	Jly/Aug 89
SHSA de Silva	Irrig Water Mngmt, IRRI Philippines	Aug/Oct 89
W Kapupahana	Human Res Dev, USDA, WDC	Sep/Oct 89
SM Somaratne	Org & Mngmt Agric Ext Syst, Illinois, USA	Sep 89
SK Yasakethu P Ganeshmoorthy	Planning Mngmt DTCP, Phil	Sep 89
HB Herath	Org & Mngmt Agric Ext Syst, Illinois, USA	Sep 89
VS Ginigaddara ST Fernando	Integr Farming Syst Mngmt AIT, Thailand	Sep/Oct 89

SHORT TERM TRAINING - ORIGINAL PHASE (1985 - 1990)

NAME	COURSE	DATE
L de Silva	Proj Analysis, USDA, WDC	Sep/Oct 89
HP Ariyaratne GM Wasantha Chitral K Weersinghe A Senthianathan MAP Munasinghe N Fernando ASU Liyanage PB Jayamanne	Grain Legumes, Vegetab. Stdy Tour Pakistan, India Bangladesh	Sep/Oct 89
BR Chandrasoma KSB Abeysinghe	Seed Tech, UPLB, Phil	Sep/Dec 89
MM Weerakoon Banda	Seed Tech, UPLB, Phil	Sep/Dec 89
HKL Atapatthu	Integ Farming Syst Mngmt	Sep/Oct 89
K Chandrasekera	AIT, Thailand	
T Gamage	Integ Farming Syst Mngmt AIT, Thailand	Sep/Oct 89
DDB Dodanwela	Plant Pathology, IRRI	Oct89/Apr90
SL Weerasena RM Karunaratne A Krishnar YSHP de Silva W Ratnayake M Bogahawatte GDA Weerasuriya	Onion Production India, Indonesia	Oct/Nov 89
N Kurukularachchi WGDA Wimalaratne	Rice Based Cropping Syst Thailand	Oct/Dec 89
G Wijewickrema WAG Sisira Kumara	Mngmt of Rainfed Agric AIT, Thailand	Nov/Dec 89
GB Chandralatha NPC de Silva N Pathmanathan	Trng Methods DTCP, Phil	Nov 89
EA Dias	Trng Methods, DTCP, Phil	Nov 89
IM Gunawardena P Vasudevah GJ Mendis ARM Samarasekera	Prepn of Printed Material for Communication Thailand	Nov/Dec 89
KA Ranaweera B Palarajah WP Madawanarachchi N Govinna	Seed Strategy, Accounting & Mngmt, Bangkok	Feb 90

SHORT TERM TRAINING - EXTENSION PHASE (1991 - 1993)

NAME	COURSE	DATE
H Rajapakse DG Ranmukarachchi	Study Tour of Plant Nurseries, Planting Material, Thailand	Jul 92
HMC Kapilaratne MHJP Fernando SL Weerasena GGM Sikurajapathy WP Madawanarachchi HGP Nelson	Seed Policy Study Tour - Thailand, WDC, Mississippi, Bolivia, Colombia, California, Indonesia	Aug 92
S Suntharalingam S Ekanayake	Post Harvest Handling, Davies, California, USA	Aug 92
M Agalawatte	Proj Mngmt & Eval Seminar, WDC, USA and OSU, Oregon	Aug 92
AVS Weerasinghe	Soil Consv & Mngmt Stdy Tour, Utah, USA	Sep 92
V Vingnanakulasingam	Chilli Plant Path. LSU, USA	Sep 92
H Gamage KN Mankotte P Weerakkody	Agric Communic. Illinois, USA	Sep 92
N de Silva	Media Tech Planning Product & Utiliz., Thailand	Sep 92
EM Dassanayake	Cross Protection Res Australia	Sep 92
HM Jayawardena Banda	Plant Quarantine Pro Thailand	Sep 92
N Ranatunga RP Mahindapala SK Yasakethu BW Somapala KL Jayatissa	Training Mngmt, AIT, Thailand	Oct 92
P Ganashan	Chilli Pepper Produc Malaysia	Oct 92
SPR Weerasinghe SL Amarasiri N Vignarajah G Jayawardena KA Mettananda A Lecamwasam M Joseph H Samaratunga E Suraweera GAC de Silva ARM Mahrouf G Balasuriya S Wirasinghe H Gamage J Fernando S Weerasena PLE Pannila WP Madawanarachchi B Sumithrarachchi	Second Asian Farming Systems Symp Sri Lanka	Nov 92

SHORT TERM TRAINING - EXTENSION PHASE (1991 - 1993)

NAME	COURSE	DATE
S Gnanachandran SMSSA Senanayake	Computer Course AIT, Thailand	May 91
IS Padmasiri H Samaratunga	Intl Symp on Trop Fruit Res, Thailand	May 91
RS Abeysekera WM Jayasena	Strategic Mngmt for USDA, Washington DC	Oct 91
SPR Weerasinghe	Plant Quarantine Germ Plasm Conserv. USA, Philippines	Oct 91
WP Madawanarachchi NA Alwis Perera RMG Weerakoon K Vincent KK Siripala SM Sudu Banda SM Gunapala	Seed Technology UPLB, Philippines	Nov 91
H Rajapakse	Orchid Conference Chiang Mai, Thailand	Jan 92
P Ganashan	Biotechnology Conf Banana, Costa Rica	Jan 92
GDA Weerasuriya DD Weerakkody A Nadarajah KD Dharmadasa PK Hulugalle S Bodhipakse R Dikkumbura	Seed Technology UPLB, Philippines	Feb 92
V Abeykoon	Intl Symp on Nutrient Mngmt for Sustained Productivity, India	Feb 92
A Wettasinghe	FAO/CIPAC Pesticide Meeting, Thailand	May 92
PNP Jayasinghe HA Sarath Chandra HM Wickremasinghe GR Chandratileke Banda EM Dassanayake Banda DM Jayawardena JS Kurukulasooriya KD Kumarasinghe Appuhamy UB Gankewela GV Thomis JP Atapattu RM Karunaratne	Study Tour, Field Crops Ext, Thailand	Jun 92
SSBDG Jayawardena DEF Suraweera OPK Chandrasiri PLE Pannila H Samaratunga	Mngmt Leadership in Agric Production Practices, Nebraska, USA	Jun 92
RM Piyadasa M Atham Charles Silva HAVT Navaratne VRD Banda DK Kulatunga HA Chandrasekera AR Punchibanda KG Premaratne IM Balasuriya S Periyasamy DB Weeratunga	Study Tour, Field Crops Ext, Thailand	Jun 92

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NAME	COURSE	DATE
H Rajapakse LG Ranmukarachchi	Study Tour of Plant Nurseries, Planting Material, Thailand	Jul 92
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M Agalawatte	Proj Mngmt & Eval Seminar, WDC, USA and OSU, Oregon	Aug 92
AVS Weerasinghe	Soil Consv & Mngmt Stdy Tour, Utah, USA	Sep 92
V Vingnanakulasingam	Chilli Plant Path. LSU, USA	Sep 92
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N Ranatunga RP Mahindapala SK Yasakethu BW Somapala KL Jayatissa	Training Mngmt, AIT, Thailand	Oct 92
P Ganashan	Chilli Pepper Produc Malaysia	Oct 92
SPR Weerasinghe SL Amarasiri N Vignarajah G Jayawardena KA Mettananda A Lecamwasam M Joseph H Samaratunga E Suraweera GAC de Silva ARM Mahrouf G Balasuriya S Wirasinghe H Gamage J Fernando S Weerasena PLE Pannila WP Madawanarachchi B Sumithrarachchi	Second Asian Farming Systems Symp Sri Lanka	Nov 92

SHORT TERM TRAINING - EXTENSION PHASE (1991 - 1993)

NAME	COURSE	DATE
C Kudagamage	World Neem Conf India	Feb 93
S Amarasiri HP Ariyaratne LD Dissanayake JA Sirisena S Peiris BASS Padmalal	Hort/Study Tour Australia	Feb/Mar 93
M Dionysius	Tropical Fruits Course Australia	Mar/Apr 93
RRA Wijekoon	Training on Graphics Production, USA	Mar 93
D Abeysuriya SA Ratnapala EA Gnanasena BM Jayasundera Banda MP Weerasekera AJM Seneviratne DB Jayaratne	Onion Study Tour India	Mar/Apr 93
KAD Ariyaratne MHD De Silva KDG Dalugoda	Plant Quarantine Malaysia	Mar/Apr 93
H Senerath HM Jayawardena Banda	APPPC Workshop Plant Quarantine Malaysia	Apr 93
YC Piyaseeli MAG Wimalasena SH Leelawathie R Weerasekera MA De Silva	Project Mngmt AIT, Thailand & Indonesia	May/Jly 93
GDA Weerasuriya	Seeds Enterp Mngmt USA	Jun/Jly 93
KWMV Mapitigama	Managing Rural Development AIT, Thailand	Jly/Aug 93
CB Hindagala SJBA Jayasekera KK Perera AS Vivekanandan	Hort Tour Malaysia	Aug 93
H Samaratunga P Wijesundera J Kannangara SP Gunadasa UM Abeyratne AD Sathyapala WM Subasena	Horticulture Study Tour Thailand	Aug 93

Utilization of DARP SPECIAL PROJECT FUNDS

EXPENDITURE AGAINST SPECIFIC ACTIVITY BUDGETS WITHIN LINE ITEMS AS AT 20 AUGUST'93

ACTIVITY	APPROVED AMOUNT	TOTAL EXPENDED TO DATE	COMMITMENTS TO PACD
Line Item.Sub-line Item.Specific Activity		(US Dollars)	
1.4.01 Modifications to Computer Room	1,605	1,602.57	
1.5.01 Special Studies	3,000	2,438.37	
3.2.01 Strengthening Comm. Unit (Software)	4,000		4,000.00
3.3.01 Expand Farm Broadcasting Capacity	30,000	27,716.11	
3.5.01 Printing Technoguide	37,515	37,513.39	
3.5.02 Newspaper Campaigns	30,045	30,041.82	
3.5.03 Mass Media Campaigns	75,000	73,692.39	9,500.00
4.1.01 Orchids	10,000	9,984.00	
4.1.02 Tropical Fruits	880	878.92	
4.1.03 Other Germplasm	1,000		500.00
4.6.01 Onion Storage Structure Improvement	4,400	4,316.51	
4.7.01 Meda Demonstrations'92	1,690	1,686.78	
4.7.02 Meda Demonstrations'93	15,000	14,055.29	
4.8.01 Yala Demonstrations'92	8,785	8,776.49	
4.8.02 Yala Demonstrations'93	9,000	2,359.66	
4.9.01 Cross Protection	17,000	27,247.86	
4.9.03 Mealy Bug	2,600	2,116.26	
4.9.04 Leafy Vegetables	2,600	1,023.71	
4.9.05 Vegetable Pest	2,250	2,217.26	
4.9.06 Ripening of Banana	4,000	2,425.47	
4.9.07 Pre-basic Seed Potato	2,000	499.16	
4.9.08 Apple and Pear Diseases	2,600	773.00	
4.9.09 Cooking Quality of FLCG Crops	6,000	1,299.90	
4.9.10 PGR and Cucubits Productivity	2,000	869.95	
4.9.11 Latex in Mangosteen	2,500	1,389.30	
4.9.12 Chilli NLD Studies	1,000	203.56	
4.9.13 Insect Tests:Floriculture	3,200	2,489.27	
4.9.14 Leaf Twister Disease:Onion	1,300	2,072.81	
4.9.15 Tissue Culture:F. benjamina	2,000	1,698.67	
4.9.16 Weaning Plantlets	2,000	2,450.63	
4.9.17 Potato Tuberlet Production	2,000	2,052.93	
4.10.01 Bio-Technology Workshop	7,850	4,237.71	3,500.00
4.10.02 Horticulture Exhibition	59,500	54,169.03	
5.2.01 Seed Market Study	9,500	8,751.16	
5.2.02 Farm Manager Training	1,500	1,493.00	
5.2.03 Nurserymen Training	9,600	10,159.37	
5.2.04 Seed Development Unit	3,000	1,853.04	
5.3.01 Seed Enterprises Manager	40,000	37,879.16	2,500.00
6.1.01 Install. of Seed Equip - Nikeweratiya	21,000	20,293.72	
6.1.02 Install. of Seed Equip - Pelwehera	19,500	17,420.21	2,600.00
6.1.03 Install. of Seed Equip - Aluttarama	20,000	17,929.88	1,000.00
6.2.01 Extend Certification Services	6,000	6,017.37	
6.2.02 SC&PP Building Repairs	11,000	10,832.26	
6.2.03 Labelling Mother Plants	7,000	7,894.74	
6.3.01 Demonstrate Large Onion Seed Prod.	4,200	4,161.70	

Contd.

7.1.01 Management Training	20,000	18,962.88	
7.1.02 DOA Management Workshop	1,380		
7.2.01 Software Training	16,000	14,352.58	3,500.00
GRAND TOTAL	544,000	502,299.85	27,100.00

FACILITIES CONSTRUCTION

1. MAHA-ILLUPPALLAMA RESEARCH CENTER:

Research Laboratory	01	Girls' Hostel	01
Screen House	01	Living Quarters IV-2	
Screen House (Renovation)	01	Living Quarters III-1	

2. PELWEHERA SEED FARM & PROCESSING CENTER:

Processing/Storage Bldg.	01	Living Quarters IV-01	
Storage Bldg. with R.S.F.	01	Remodelling Storage	01
Drying Floor	01		

3. BANDARAWELA RESEARCH CENTER

Living Quarters IV-02

4. GANNORUWA RESEARCH CENTER (CARI)

Laboratory	01	Drainage System	01
Green House	01		

5. ALUTHARMA SEED FARM & PROCESSING CENTER

Processing & Storage Bldg. (W/R.S.F)	01
Drying Floor	01
Remodelling Storage	01
Living Quarters III	01
Living Quarters II	01

6. NUWARA-ELIYA (SITA EIYA & UDARADELLA)

Net Houses	02

7. ANGUNAKOLAPELESSA RESEARCH STATION:

Field Storage & Processing Floor	01
Screen House	01
Equipment Workshop	01
Living Quarters IV	01
Living Quarters III	01

8. NIKAWERATIYA SEED CENTER:

Processing & Storage Bldg.	01
Drying Floor	01
Remodelling Storage	01

9. MAKANDURA RESEARCH CENTER:

Research Laboratory	01
Stores Room	01
Vehicle Yard	01
Equipment Workshop	01
Water Supply System	01
Living Quarters IV	03
Living Quarters III	02

DIVERSIFIED AGRICULTURE RESEARCH PROJECT;
(383-0058)
LIST OF REPORTS

ANNEX B-8

NO.	TITLE	AUTHOR
001	Management Life of Project Work Plan (March 1986)	
002	Management Issues and Guide lines to the Sri Lanka Department of Agriculture	Jerry VanSant, Management Information Specialist (February 27, 1986)
003	Formulation of Subsidiary Food Crop Baseline Survey	Robin B.Erickson, Baseline Survey Specialist (March 1, 1986)
004	Economic Constraints for Increasing the Production of Subsidiary Food Crops in Sri Lankan	
005	Recommendations for Seed Storage in Sri Lanka	
006	Observations on Water Management and Conservation	Dr. Delbert W. Henderson, Soil & Water Management Specialist (December, 1987)
007	Trip Report to the International Rice Research Institute, Philippines	
008	Life of Product Work Plan (July 1986)	
009	Work Plans of the Long Term Technical Assistance Staff	Dr. G.W. Selleck, Chief-of-Party (August 1986)
010	Life of Project Work Plan	Dr. G.W. Selleck, (August 1986)
011	Farming Systems Research and Extension Workshop-Coordinator's Report	Dr. Gladys Nott (September 8 - October 7, 1986)
012	Proceedings of the Workshop on Farming Systems Research & Extension	
013	Diversified Agriculture Research Project Crops	G.W.E. Fernando, Short-Term Agronomist (September 3, 1986)

014	Notes on the Analysis of Demand and the Estimation of Demand Elasticities	
015	Recommendations to Improve the Sale of Seeds	Carl E. Classen, Short-Term Seed Specialist (August-October 1986)
016	Trends in the Production of Chillie (Capsicum Annum) During 1971-1985)	
017	Trends in the Production of Soybean (Glycine Max) During 1971-1985	
018	Life of Project Work Plan, Revised, February 1987	
019	Trends in the Production of Gingerly (Sessamum Indicum) During 1971-1985	
020	Proceedings of the Sri Lanka Seed Workshop	
021	Transfer of Technology from Research to the Farmer	Dr. L. Dale Haws, Short-Term Specialist October 1986-March 1987)
022	Trends in the Production of Groundnuts During 1971-1985 Period in Sri Lanka	
023	Sri Lanka Seed Workshop - Coordinator's Report	Dr. Gladys Nott, Workshop Coordinator (January-March 1987)
024	Trends in the Production of Potatoes During the 1971-1985 Period in Sri Lanka	
025	Weed Control and Integrated Pest Management	J.F.Alex, Short-Term Weed Control and Integrated Pest Management Specialist (April 30, 1987)
026	Trends in the Production of Red Onions During 1971-1985 Period in Sri Lanka	

027	Comparative Importance Among SFCs.	
028	Operation and Maintenance Manual for System B (May 1987)	
029	Subsidiary Field Crops in the Consumption and Expenditure Pattern in Sri Lanka	
030	Note on Priorities for DARP	
031	Trends of the Production of Sweet Potatos (1971-1984)	
032	Trends in the Production of Green Gram During the 1971-1985 Period in Sri Lanka	
033	Surface Irrigation of Perennial Fruit Crops	
034	Trends in the Production of Cowpea During the 1971-1985 Period in Sri Lanka	
035	Trends in the Production of Sorghum During the 1972-1984 Period in Sri Lanka	
036	Projections in the Demand of Maize and Soybeans	
037	Effect of Irrigation Water on Water Table Levels at Aralaganwila Station	
038	Cost of Seed Production on Selected Governement Farms (August 1987)	Dr. P. Abeygunawardhana, Luis A.Navarro, Gary A.Reusche
040	Recommendations for Agricultural Production and Marketing (September 1987)	Luis A. Navarro, Production and Marketing Economist
041	Computerization of Agro-Climatic Data and Design of Analyses and Projection Programs	Dr. Ian Stewart, Agrometeorologist (August-September, 1987)

042	Technical Manual, Soil and Water Management	Dr. Delbert Henderson, Soil & Water Management Specialist (December 1987)
043	First Interim Evaluation	John Robins & Charles Uphaus
044	Proceedings of the National Seminar on Agricultural Education and Training	Education training Division and G.W.Selleck (December 13, 1987)
045		
046	Restructuring of the Seed Program in Sri Lanka (December 1989)	
047	Planning Execution and Analysis Field Crop Baseline Survey in Sri Lanka	Robbin Erickson, Baseline Consultant (December 1987)
048		
049	A Survey of the Seed Sales in the Districts of Matale and Kurunegala (1983-1987)	
050	Government Market Intervention in the Soyabean Market in Sri Lanka	Dr. Jane Gleason, Agricultural Economist (May 1987-March 1988)
051	Soyabean Industry Study	Jane E. Gleason, INTSOY/SFRC/DARP (March 1988)
052	On-Farm Control Trial in Rice	Mr. Ross Lubigan, Weed Specialist (December 1987-April 1988)
053	Trends in the Production of Kurakkan	
054	Research Methodology Workshop (May 1988)	
055		
056	Production and Marketing of Subsidiary Field Crops in Sri Lanka; An Overview	

057	Improving Production of Subsidiary Field Crops in Sri Lanka	Dr. Luis A. Navarro, Short-Term Production and Marketing Economist (March-May 1988)
058	Recommendations for Inoculant Research and Production	Dr. Bob Davis, Short-Term Microbiologist Niftal/DARP (April-June 1988)
059	Production and Marketing of Blackgram in the Vavuniya District of Sri Lanka	A. Negendran, Regional Agricultural Economist (June 1, 1988)
060	Restructuring of the Seed Program in Sri Lanka-	December, 1987.
061	Department of Agriculture Work Plan for Subsidiary Food Crops Related to the Activities of the Diversified Agricultural Research Project (June 1988)	
062	Production and Marketing of Soyabean Anuradhapura District of Sri Lanka	Y.M. Wickramasinghe, Regional Agricultural Economist (June 1988)
063	Production and Marketing of Maize in the Anuradhapura District of Sri Lanka	Y.M. Wickramasinghe, Regional Agricultural Economist (June 1988)
064	Production and Marketing of Groundnut and Sesame in Moneragala District of Sri Lanka	K.L. de Silva, Regional Agricultural Economist (June 1988)
065	Trends and Geographical Distribution Field Crop Production in Sri Lanka	L. Navarro, E.Suraweera and S.Zuhair (June 1988)

066	Home & Village Level Soyabean Utilization Training in Sri Lanka; Accomplishment, Constraints and Potential	
067	Relative Efficiency of Government Farm Seed Production Versus Private Sector Seed Production in Sri Lanka	P. Abeygunawardhane, Gary Reusche, Edward Suraweera (June 1988)
068	Production and Marketing of Cowpea in Anuradhapura, Kurunegala and Puttalam Districts of Sri Lanka	J.A.T.P. Gunawardhane, Agricultural Economist (June, 1988)
069	Production and Marketing of SFC Crops in Aralaganwila and Girandurukotte Regions of Sri Lanka	H.U. Warnakulasuriya, Regional Agricultural Economist (June, 1988)
070	Criteria for Operation, Design, and Evaluation of Small Basins for Efficient Irrigation of Diversified Crops	D.W.Henderson
071	Production and Marketing of Greengram in the North Western Province of Sri Lanka	W.H.D. Kularatne, Regional Agricultural Economic (June 1988)
072	Production and Marketing of Maize in the Ampara District of Sri Lanka	M.I.M. Pafeek, Regional Agricultural Economist (June 1988)
073	Allocative Efficiency, Returns to Scale and Farm Size in Soyabean Productions in Sri Lanka (June 1988)	Welwita, S.M.A. and Jane A. Gleason
074	Lessons from the Establishment of a Small-Scale Soya Processing Business	J.E. Gleason, V.K.Selleck (June, 1988)
075	Certified Seed Production July 1988 - July 1990	

076	Horticulture Crop Review -	
077	Security Seed Supply and Emergencies	
078	An Economic Assessment of the Sri Lankan Seed Program	Couvillion, W.C. and G.Reusche (July, 1988)
079	Program of Action: Sri Lanka Seedsmen's Association and Provincial Seed Committee	
080	Pilot Communication Project for Effective Transfer of Field Crop Production Technologies to Farmers	Dr. Howard E. Ray, Short-Term Mass Media Consultant (August, 1988)
081	Research Recommendations for Subsidiary Food Crops	Dr. Richard A.Morris, Research Agronomist (August, 1988)
082	Tender for modification of a Bldg. to install a Radio Recording Studio for DOA, Farm Broadcast Service, Colombo.	Dr. Preston Pattie
083	Grain Legumes in Sri Lanka	Dr. J.L.Tickoo, Short-Term Legume Breeder (August 1988)
084	Fertilizer Management for Crop Sequences	Dr. R.A. Morris, Short Term Agronomist (September 1986-August 1988)
085	Water Management Research in Sri Lanka	
086	Seed Potato from True Seed Technoguide	
087		
088	On-Farm Water Management (Draft)	
089	Rice Seed Supply in Sri Lanka - A Case History	

090	Seed Program Management Study Tour	A.K.D. Wanigaratne. D.Wijewardena, M.H.J.P. Fernando, W.D.Albert, M.D. Samarasinghe, S.Wirasinghe and G.A.Reusche
091	Support Material for Collaborative Research and Graduate Degree Program	
092	Drainage in System B: Yala Season Report	(D.W.Henderson)
093	Drainage in System B: Maha Season Report	(D.W.Henderson)
094	Second Interium Evaluation (May 11, 1989)	
095	Improved Seed Production (February 1989)	
096	Water Management Research	Dr. Jim Wolf, Short Term Water Management Consultant (March-April, 1989)
097	Phosphorous Fertilizer Management	Dr. R.A. Morris, Short Term Agronomist (February-April, 1989)
098	Computerization of Agro-Climatic Data and Design of Analyses and Projection Programs	Dr. I.J. Stewart, Short-Term Agronomist (March-May, 1989)
099	Assessment of Training Needs for Extension/Education and Training Division Staff for Technical Transfer	Dr. Violet Malone, Short-Term Agricultural Extension Specialist (March-May, 1989)
100	Water Management in Other Field Crops in Irrigated Paddy Lands	Dr. D.W.Henderson, Short-Term Soil & Water Management Specialist (April-May 1989)

101	Herbicide Trials in Subsidiary Field Crops	Mr. R.T. Lubigan, Short-Term Weed Scientist (March-June 1989)
102	Farming Systems Approach to Research and Extension General Concepts and Methods	R.A.Morris
103	Economic Analysis of Marketing, Financial and Security Aspects of the Sri Lankan Seed Program	Warren C.Couvillion, Gary Reusche (July, 1989)
104	Breeding-Methods in Vegetable Crops	Dr. M.L.Pandita, Short-Term Vegetable Crops Specialist (August, 1989)
105	Department of Agriculture Work Plan for Food Crops Related to the Activities of the Diversified Agricultural Research Project (Aug, 1989)	
106	Organization Development Consultation in the Department of Agriculture	Dr. Jerry Robinson, Short-Term Consultancy in Organization Development (August-September, 1989)
107	Objectives, Achievements and Plans of the Diversified Agriculture, Research Project	G.A.Reusche and G.W.Selleck (October 1, 1985-September 30, 1989)
108	Grain Legumes: Research Results and Recommendations, 1988-1989	Dr.J.L.Tickoo, Long-Term Legume Breeder (October 1988-September 1989)
109	Baseline Survey of Subsidiary Food Crop Cultivation in Sri Lanka	A.A.B.Hafi and R.B.Erickson (September, 1989)
110	Mission Report: Integration of Forestry and Agricultural Extension	J.Davidson, M.S.M.Azmey and K.J.T. Dayananda

111	Research & Extension Network in Pakistan, India and Bangladesh	J.L. Tickoo (September 9-October 2, 1989)
112	Pigeonpea in Sri Lanka	J.L.Tickoo, G.M.W.Chitral, W.M.M.Weerakoon, Kalyani Weerasinghe, S.J.B.A.Jayasekera (September, 1989)
113	Staff Development and Training in the Department of Agriculture	Dr. Violet Malone, Short-Term Agricultural Extension Specialist (August-October 1989)
114	Analytical Techniques in Economic Research	Elton Li and Art Stoeker, Agricultural Economics and Computer Specialist (November, 1989)
115	Onion Training Program	Dr. J.L.Tickoo (October-November, 1989)
116	Rainfed Highland Farming with Subsidiary Food Crops	Dr.G.S.Dhillon, Short-Term Extension Agronomist (January, 1990)
117	Development of a Small-Scale Soya Processing Business in Sri Lanka	J.E.Gleason, V.K.Selleck (January, 1990)
118	Leadership and Management Workshop Needs Assessment	Dr. Jerry Robinson, Short-Term Consultant in Leadership and Management (February-March 1990)
119	Phosphorous Fractions, Sorption and Availability in Sri Lanka Alfisols	R.A.Morris and R.R. Sattell (March, 1990)

120	Soil Constraints, Nutrient Management and Rainfall Efficiency in the Dry Zone, Wet Zone Soil Conservation	R.A.Morris, Short-Term Consultant (February 10-April 9, 1990)
121	Training the Trainers: Impact Assessment, Constraints, Needs and Strategy	Dr. David Kahler, Dr. (Mrs.) Jaya Gajanayake (April, 1990)
122	Weed Science in Sri Lanka	Dr. Garvin Crabtree, (April 23-May 16, 1990)
123	Current Labour Usage and Future Requirements for Government Seed Farms	Dr. Gary Reusche & P. Abeygunawardana (August, 1990)
124	Weed Management Technoguide, May 7-8, 1990	Research Division and G.W.Selleck (August, 1990)
125	Research Planning & Management	G.W.Selleck, (October 85-September 90)
126	Training of Trainers:Strengthening the Capabilities of Trainers	Dr. Jaya Gajanayake (August 17, 1990)
127	Assistance to Public and Private Sector Seed Activities in Sri Lanka, 1986-1990	Dr. Gary Reusche, Seed Specialist (October 1986/1990)
128	Strengthening Training of Trainers Skill	Dr. David Kahler, World Education and J.Gajanayake, University of Colombo (September, 1990)
129	A Survey of Seed Supply and Distribution of Paddy Varieties Originating at the Bombuwela Research Station	K.G. Chandra Dhrmasena,Dr.G.A.Reusche, M.Wijeratne and W.P.Madawanarachchi (October, 1990)
130	Socio-Economic Characteristics of Farmers who Produce Subsidiary Food Crops	H.M.D.R.Herath, I.M.Gunawardena (October, 1990)
131	Comments on Production and Marketing	G.W. Selleck

132	Proceedings of the Onion Workshop, January 8, 1990	
133		
134	Economic Behavioural and Communication Aspects Associated with Subsidiary Food Crop Growers	H.B.D.R.Herath and I.M.Gunawardena (October, 1990)
135		
136	Weed Control Practices Adopted by Dry Zone Farmers	S.L.Ranamukarachchi, J.M.Surasena and L.H.P.Gunaratne (October, 1990)
137	Nikaweratiya farmer's Seed company - feasibility Report.	North western Province MAY 1991.
138	Five Years of Progress Towards Eight Year Goals	By: G.W. Selleck.
139	Proceedings-Weed Science Workshop (May 7-8, 1990)	
140	Pre-Feasibility Report: Nikaweratiya Seed Company (December 1990)	
141	Effect of Different Packaging Materials on the Quality of Soyabean	H.Kularatne, Colin N. Peiris, G.A. Reusche and U.R.Sangakkara
142	Compilation of Statistical Information on Topics Relative to the Seed Program in Sri Lanka	
143		
144	Seed Enterprise Development and Management	
145	Life-of-Project Work Plan Extension Phase, 1991-1993	
146	Wayamba Farmers' Seed Company Feasibility Report (May 1991)	
147	A Framework for Seed Policy Analysis	
148	Seed Policy Issues	

149	Seed Producers' Association (Pvt) Ltd. - A Model Seed Enterprise	
150	Seed Enterprise Development Strategy-Final Consultancy Report	
151	Management by Objective	G.W.Selleck
152	Management of Agricultural Research in Sri Lanka (September 1991)	
153	The Managers' Reference Guide	
154	Hill Country Vegetable and Fruit Cultivation	
155	Future Directions for Management and Development of the Plant Genetic Resources Centre (PGRC) Sri Lanka - 1991	
156	Subsidiary Food Crop Production in the Dry Zone of Sri Lanka December 1991	
157	Conflicts in Natural Resource use and Degradation: The case of Bundala Wildlife Sanctuary (August 1991)	
158.	Livestock Sector Policy Review Inception Report (Brown, Copeland & Co. February, 1991)	
159.	DARP Proposal	
160.	Notes on Planning for the Department of Agriculture of Sri Lanka	Edwin C.Price, Jr
161.	Horticultural Assessment Commodity and Program Recommendations	Harold J. Mannion, Franklin W.Martin, Andrew A.Duncan) - March, 1992
162.	Maize: Meeting Future Demand in Sri Lanka	Yapa M. Wickramasinghe & Preston S.Pattie (April, 1992)

163.	Development of a Research Strategy Plan Research Division, Department of Agriculture	John L.Nickel
164.	Soyabean:Need for Coordinated Action (June 1992)	Yapa M.Wickramasinghe & Preston S.Pattie
165.	Review of the Variety Development and Release Program	M.E.R. Pinto, W.D. Albert & G.A. Marlowe (June 1992)
166.	Business Plan of Tomato Seed Enterprise Based on the Contract Growing Programme at Walawela	Upali Dahanayake (July 1992)
167.	Management Development Program for Department of Agriculture Senior Management Team Report for Phase I (August 1992)	Lee Jennings, Jane Trent Surles, Piyadase Abhayagoonawardhena
168.	Horticultural Exhibition - 1993 / Work Plan and Budget	Dr. N. Vignarajah & Dr. S.J.B.A. Jayasekera (17th August, 1992)
169.	Dipolar Power Transistor Based AC/AC Converters with Wareform Fidelity (3 August 1992)	
170.	Multi Media Campaign Plan	H.Gamage, K. Mankotte, P.Wijekoon. P.Weerakkody, S.Gnanachandran, D.Kuhnle (September 4, 1992)
171.	Perennial Tropical Fruit Development in Sri Lanka	K.R.Chapmam and M.E.R.Pinto (August 1992)
172.	Review of Plant Quarantine Policies and Regulations	R.L.de Silva, J.Premaratne, R.H.S.Rajapakse, N.G.Santacroce (August 1992)

173	Development of a Viable Seed Industry in Sri Lanka	G.G.M. Sikurajapathy, M.H.J.P. Fernando, S.L. Weerasena, W.P. Madawananarachchi, (Sept. 1992)
174	Toward Effective Multimedia by Daryl H.	November, 1992
175	Baseline Survey to Launch Multimedia Campaigns	December, 1992
176	Business Plan for Royal Seed	December, 1992
177	The Ornamental Plant & Flower Industry in Sri Lanka	Andrea L. Henderson
178	DARP - Quarterly Progress Report	October-December, 1992.
179	Role of Public & Private Sector in Horticulture in Uva Province	January, 1993
180	Weed Research in Sri Lanka an Innotated Bibliography	H.P.M. Gunasena, 1992
181	Use of Mass Media in Extension Communication	Darryl H. Kuhnle, February, 1993.
182	DARP - Work Plan 1993	Output targets by Technical and Managerial Area.
183	Management Development for Department of Agriculture, Senior Management Team. Report for Phase II	Lee Jennings, Jane Trent Surles Piyadasa Abeygoonawardena, February, 1993
184	Development of a Viable Seed in Sri Lanka - September, 1992	G.G.M. Sikurajapathy, M.H.J.P. Fernando, S.L. Weerasena, W.P. Medawanarachchi
185	DARP (383-0058); Quarterly Progress Report	January - March, 1993.
186	Plant Propagation	By: Bob Nissan

NO	TITLE	AUTHOR
187	DARP - FINAL EVALUATION REPORT	Chemonics Int. Div. Dr. James Chapman, Albert Brown, May 28, 1993
188	Development of a Masters Program Major in Agro-forestry at the University of Peradeniya, Winrock-F/FRED	Romulo A. Del Castillo Celso B. Lantican TRG
189	Training in Plant Propagation Procedures and Nursery Management	R.J. Nissen - Consultant M.E.R. Pinto - Consultant May, 1993.
190	DARP: Research Grants 1991-1993	August, 1993.
191	DARP: Quarterly Progress Report	April-June, 1993.
192	Review of Draft Seeds at 1991	P.K.T. Perera - Consultant June, 1992.
193	DRAFT-Present status & future Prospects of Onion Production in Sri Lanka.	Dr. Preston Pattie, Mr. Yapa, M. Wickremasinghe, August 3
194	Development of Farm Broadcasting in Sri Lanka.	Mr. Tilak Jayaratne, July 93
195	Post-Training of Participants DARP Scholarship programs.	August, 1993.
196	Management Development Program, DARP/Senior Management Team.	H. Lee Jennings, Jane Trent Surless.
197	Factors Affecting Seed Marketing in Sri Lanka	August, 1993
198	Special Project Funds Activities: Completion Reports	August, 1993
199	Programme Documentation Computerized Payroll System DOA	kamalanath B. Samarakoon, Advisor for Programming August, 1993.
200	USSER MANUAL Computerized Payroll System DOA	August, 1993

NO	TITLE	AUTHOR
201	A Framework for Analysis of Agricultural Diversification	Edwin C. Price, July 1993.
202	Management Development Program for the Department of Agriculture of Sri Lanka Senior Management Team	H. Lee Jennings, Jane Trent Surless, TR Consultant, July 1993.
203	Tender Document Installation of seed progressing equipment at seed processing Unit	DOA/ Aluththarama

E:\REPORTS.AA
March 31, 1994.

IMPLEMENTATION EXPERIENCE 1985 - 1990

Research Planning and Management

Fourteen crops were selected for special attention in the Department's plan for crop diversification.

Establishment and operation of the Research Planning Cell.

Increased cooperation and communication between staff working on the same commodity at different research centers.

Communication between RARCs improved when research coordinators were appointed for area-wide projects.

Appointment of university staff to research coordination committees.

Regional Technical Working Group (RTWG) involve Extension Division in research planning.

Establishment of an annual series of research seminars.

Adoption of experimental procedures which permit valid comparison of research data.

Research workshop at which steps between the conception of a research idea and reporting and publishing research results were reviewed and discussed.

Increased linkages between the DOA and international agricultural research centers and national centers in neighboring countries with similar agro-climatic and cultural conditions.

Formation of professional societies in extension, socio-economics, and weed management.

Process Management

Summaries of management techniques written and distributed to Deputy Directors.

Four DOA professionals received short-term training abroad in management techniques.

A program of personnel promotion based on performance introduced by the Extension Division.

Job descriptions developed for employees in the Education and Training Division.

Five workshops attended by 130 professionals leading to the identification of the DOA's leadership and management needs.

Workshop for the Directorate and 20 other top leaders resulted in adoption of a mission statement.

Workshops with Divisional leaders resulted in development of goals and operational management objectives.

Information Systems Management

Plan for computer procurement.

Training in data management and microcomputer software technology to 97 professionals.

Research

Agronomy/Farming Systems

Research officers introduced to the use of MSTAT.

Workshop on FSR/E held during the first year of the project.

Concept, design and requirements of a soil laboratory were provided to the DOA.

Plant Breeding

Approximately 2,000 germplasm lines of both field crops and vegetables imported for field trials and variety improvement.

New crops--pigeonpea, lentil and chickpea--introduced through the DARP/ICRISAT/AGLIN program.

Breeding program written for legume crops.

A legume workshop was held. Four plant breeders received advanced degrees.

Weed Management

A national weed coordinator appointed to organize weed management research in a systematic way.

Survey conducted to determine farmers' weed problems and the effectiveness of their weed management practices.

One hundred forty-five weed specimens collected and deposited in the National Herbarium.

The most effective control ever recorded of Cyperus routndus, the most serious field weed in Sri Lanka resulted from DARP experiments.

Development of a 28-page guide, Recommendations on Weed Management in Field Crops.

Water Management

Establishment of a water management coordinating committee to support and advise researchers.

A plan developed for water management research.

Recommendations for irrigation and drainage systems which are being used by extension and farmers

Other Research

Recommendations for local manufacture of Rhyzobia.

Analysis of 100 years of weather records.

Extension

Printing of 35 publications of value to extension staff and farmers.

An analysis of media activities, staff, equipment and facilities in the DOA

A media pilot project utilizing an optional mix of available media was recommended

Two scholars received short-term training in the use of mass media.

A week-long worksnop was attended by 30 participants to upgrade expertise in farm broadcast programming.

A comprehensive technoguide, Department of Agriculture Recommendations for Field Crops, was published

Seeds

National workshop to evaluate the current status of the seed industry and chart directions for continued development.

A program of action designed to increase private sector participation in the supply and distribution of seeds.

Economic and cost-of-production studies on seed production.

Technical input in the design of four seed processing plants and the development of specifications for seed processing equipment.

Establishment of the Seed Development Unit to provide technical assistance to new seed companies.

Establishment of an association comprised of retailers engaged in the sale of seeds.

Restructuring of seed pricing to include a retail margin.

Registration of private sector seed dealers selling government seed.

Reduction in the number of government seed farms from 37 to 19.

Policy Framework and Economics

Baseline Survey: Large scale agricultural survey consolidating information on production and marketing of SFCs

Nine Agricultural Production and Marketing Studies on 7 crops.

Paper analyzing trends of area planted, production and yields of 14 SFCs.

Policy paper including a list of requirements needed by farmers to make sound marketing and production decisions.

The questionnaire for cost of cultivation (COC) data collection modified and a revised version of a computer program, along with a user's manual, prepared for reporting and analyzing COC data.

Soybean Industry Study addressed issues and made recommendations designed to achieve more fully the goals of the Soybean Project.

Five socio-economic studies conducted by staff of the University of Peradeniya in cooperation with the DOA.

Study on data uses and methodologies, including recommendations to shift focus to whole-farm economic analysis.

Three workshops staff on the appropriate use of software for different types of economic analysis.

MAJOR OUTPUTS, 1991-93

Below are targets for various outputs envisioned under the extension phase of DARP, 1991-93. The list was revised from time to time to reflect more closely the evolution in expectations of the DOA and USAID. The first column shows the overall target and the second shows the number actually completed. In parentheses after the description of some of the output targets, a brief note explains the nature of the particular output which has been completed. This listing follows the order of the extension phase Work Plan.

TECHNICAL AREA 1: COMMODITY ANALYSIS AND POLICY REVIEW

LOP TARGET	COMPLETED	DESCRIPTION OF OUTPUT TARGET
4	3	One crop-sector study per quarter for 2nd, 3rd, and 4th quarters of 1991 and the 1st quarter of 1992 (completed: Maize, Soybean, Onion)
1	1	Horticultural Assessment identifying principal functions of the DOA and recommending programs for support of horticultural industry development by first quarter 1992 (completed)
2	2	Review of plant quarantine procedures, amendment to legislative acts by mid 1992 (completed)
1	0	Review of food crop and diversification policies by mid 1993 (incomplete)
3	2	Special studies pointing to policy implications (ornamental plants, diversification in rainfed areas)

TECHNICAL AREA 2: RESEARCH PRIORITIES AND STRATEGY

1	1	Research Strategy and Work Plan by mid 1992 (complete)
1	1	Document identifying limitations of current varietal release procedures and actions for streamlining by mid 1992 (complete)
1	0	Incorporation of a section on economic significance in research designs and programs, by mid 1993 (dropped)

TECHNICAL AREA 3: COMMUNICATION TECHNOLOGY

1	1	Print Crop Technoguide in English, Sinhala, and Tamil, by end 1992 (complete)
1	1	Comprehensive Action Plan, 1st quarter 1992 (complete)
1	1	Installation of recording studio by end of Project (complete)
1	1	Desk-top publishing system in place by early 1993 (complete)
4	4	Four multi media campaigns (Meda, Yala, Pesticide Safety, and Seed Quality completed)

TECHNICAL AREA 4: RESEARCH AND TECHNOLOGY TRANSFER PROGRAMS

200	401	Introduce lines of horticultural plants (melon trials completed, orchid materials imported, tropical fruit plant materials imported.)
100	0	100 lines of 14 OFCs to be introduced by DOA
20	17	Development and release of new varieties by DOA (17 released since 1985. Three more expected in 1993)
2	2	Steps in tropical fruit propagation by 3rd quarter 1993 (plan prepared, training in plant propagation completed)
2	0	Publish IPM strategies for 3 crops and develop action plan for a pesticide residue analysis service (dropped)
1	1	Intensive, focused mass media and extension campaign on pesticide safety (complete)
1	1	Develop a Strategy/Action Plan for Development of the horticultural industry in Uva Province (complete)
16	15	Construction of onion storage demonstration units (complete)
40	270	20 hectares of demonstrations in dry and intermediate zones in 1992 and 250 hectares in 1993 to promote cultivation in Meda (completed)
1	1	Mass media campaign to draw farmer attention to Meda season (complete)
20	20	Demonstrations in Yala season to demonstrate OFC production technology (1992 and 1993 complete)

18	16	Research grants administered (16 grants completed)
1	1	Carry out a National Horticultural Exhibition, July 1993 (complete)

TECHNICAL AREA 5: SEED RESTRUCTURING AND ENTERPRISE DEVELOPMENT

1	1	Prepare Comprehensive Policy to guide development of the seed industry (complete, pending adoption by DOA)
1	1	Simplified seed law developed and presented for enactment (legal comments complete)
1	1	National seed market study (complete)
1	1	Promotional campaign for seed marketing with mass media and extension support (complete)
2	2	Seed Farm Management Workshops (complete)
6	10	Formation of seed enterprises including producer groups that will be involved in seed production and distribution (Of about 15 enterprises, DARP can take credit for directly supporting about 10)

TECHNICAL AREA 6: SEED TECHNOLOGY

6	6	Installation of six lines of new seed equipment (complete)
1	1	Certify horticultural planting materials by 1993 (complete)
15	15	Large onion seed demo plots (complete)

TECHNICAL AREA 7: ORGANIZATION AND MANAGEMENT SYSTEMS

1	1	Needs assessment in second quarter of 1992 (complete)
3	3	Executive level management training, beginning 3rd quarter 1992 (3 phases complete)
1	1	Develop a payroll program for Accounts Division (complete)
200	200	Train officers and staff in use of software programs (complete. Original target was 100.)

MANAGEMENT AREA 1: CONSTRUCTION AND PROCUREMENT

30	30	Completion of construction on 30 buildings at six sites (complete)
1	1	Delivery of all original project equipment (complete)
1	1	All additional procurement by end of Project (complete)

MANAGEMENT AREA 2: PARTICIPANT TRAINING AND MANAGEMENT TRAINING

65	65	Degrees and non-degree training programs (complete)
90	96	Person-months of short-term training (complete)
10	10	Person-months of local short-term training (complete)

MANAGEMENT AREA 3: COORDINATION, REPORTING, AND EVALUATION

3	3	Life-of-Project Work Plan and annual updates (Original Work Plan and two annual updates completed)
10	10	Quarterly progress reports. (The current report is the last quarterly progress report)
1	1	A final report comparing targets with progress, making recommendations for future projects
1	1	External impact evaluation at end of DAR Project (complete)

Enterprises Involved in Seed Paddy Production

1. Dematamalpelessa Seed Producer Association, Ampara, Eastern Province
2. Uhana Seed Producer Association, Ampara, Eastern Province.
3. Saliyapura Seed Producer Group (individual farmers) Anuradhapura North Central Province.
4. Nintheur Seed Producer Association, Ampara, Eastern Province.
5. Royal Seeds, Dimbulagala MPCS, Manmpitiya, Polonnaruwa, North Central Province.
6. Golden Seeds, Palugasdamana MPCS, Palugasdamana, Polonnaruwa,
7. Southern Pioneer Seeds, Hungama MPCS, Hungama, Ambalantota, Southern Province.
8. Pan West Seeds, Paduwasnuwara, North Western Province.
9. CIC Seeds, Malwanagama, Mahaweli H area, North Central Province.
10. Analytical Instruments, Anuradhapura, North Central Province.
    Paddy Seed Produced by Seed Enterprises

Enterprises Involved in Bean Seed Production

1. DUS Agricultural Company, 4/15 Pitakanda Rd, Aniwatte, Kandy.
2. CIC Seeds, P.O. Box 352, Colombo.
3. Sampath Seeds, No.5, Isurugama Rd, Kaikawala.
4. Ricky Seeds, Galkadilla Elamulla, Central Province.

Enterprises Involved in Chili Seed Production

1. Lanka Dutch Agricultural Company,
2. Sampath Seeds, No. 5, Isurugama, Kaikawela.
3. Akensco Lanka Seed Company, No.26, Kurunagala Rd, Dambulla.
4. CIC Seeds, P.O. Box 352, Colombo..
5. Samarakoon Seeds, Peradeniya Rd, Kandy.

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March 31, 1994.

A.I.D. EVALUATION SUMMARY – PART I

1. BEFORE FILLING OUT THIS FORM, READ THE ATTACHED INSTRUCTIONS.
2. USE LETTER QUALITY TYPE, NOT "DOT MATRIX" TYPE.

IDENTIFICATION DATA

A. Reporting A.I.D. Unit:

Mission or AID/W Office USAID/SRI LANKA
(ES# _____)

B. Was Evaluation Scheduled In Current FY Annual Evaluation Plan?
Yes [X] Slipped [ ] Ad Hoc [ ]
Evaluation Plan Submission Date: FY ____ Q ____

C. Evaluation Timing
Interim [ ] Final [X]
Ex Post [ ] Other [ ]

D. Activity or Activities Evaluated (List the following information for project(s) or program(s) evaluated; if not applicable, list title and date of the evaluation report.)

Project No.	Project /Program Title	First PROAG or Equivalent (FY)	Most Recent PACD (Mo/Yr)	Planned LOP Cost (000)	Amount Obligated to Date (000)
383-0058	Diversified Agriculture Research	1984	8/93	14,600	14,297

ACTIONS

E. Action Decisions Approved By Mission or AID/W Office Director

Action(s) Required	Name of Officer Responsible for Action	Date Action to be Completed
1. Verify the feasibility of continuing seed enterprise development by its incorporation in Agro-Enterprise and other projects	USAID	9/93
2. Explore innovative ways for the Department of Agriculture (DOA) and U.S. Scientists to maintain their scientific linkages	GSL/USAID	12/93
3. Examine the feasibility of establishing a Sri Lanka research foundation	GSL/USAID	12/93
4. Develop a strategy for continuing AID engagement with DOA for their mutual benefit in furthering agricultural development	USAID/GSL	12/93
5. Address letter to the Director (DOA) drawing attention to the recommendations made by this evaluation for DOA actions.	USAID	8/93

(Attach extra sheet if necessary)

APPROVALS

F. Date Of Mission Or AID/W Office Review Of Evaluation: (Month) (Day) (Year)

G. Approvals of Evaluation Summary And Action Decisions:

	Project/Program Officer	Representative of Borrower/Grantee	Evaluation Officer	Mission or AID/W Office Director
Name (Typed)	S.H. CHARLES / GARY E. ALEX / GLENN ANDERS	Dr. S.P.R. Weerasinghe/DIR	Randal Casey	Richard M. Brown
Signature				
Date				

ABSTRACT

H. Evaluation Abstract (Do not exceed the space provided)

The Diversified of Agricultural Research Project (DARP) is an institution building project focussed on the Department of Agriculture. DARP's initial emphasis sought expanded attention to subsidiary (non-rice) food crops (SFC) through research, technology transfer, and seed production. It evolved over its 8-year LOP in response to changes in GSL policy, AID priority, and better understanding of the environment. Research emphasis shifted gradually from low-value food crops to higher value horticultural crops with export potential. Technology transfer became oriented to mass communications, and major progress was made towards privatization of the seed industry.

Principal accomplishments included: (1) Graduate (PhD and MSc) training for more than 50 professionals enabled DOA staff to undertake more effective product, factor, and socio-economic research. (2) DOA's scientific and administrative operations were made more effective by comprehensive computerization. (3) The extension program was revamped from an agent visitation program to a comprehensive mass communications approach, involving desk-top publications, video and TV, radio, and newspaper dissemination, which supports and is supported by a provincial extension corps. (4) DOA is assisting the development of a private commercial seed industry, thus limiting its direct intervention to production of basic seed, certification, and some processing. (5) A comprehensive four-year research work plan establishes the goal and major objectives of the Division, sets crop and factor research priorities, and assigns responsibility for performance to different units and groups. (6) Most other systems (e.g., varietal release, plant quarantine) have been reviewed and work plans for their improvement have been prepared to guide their improvement. (7) There have been new varietal releases of eight subsidiary crops with improved traits.

Most of the impact of the DARP program is still to come, but there have been significant increases in production of mungbean, big onion, and cowpeas, during the DARP project, primarily reflecting expansion of planting area. Significant additional impact is expected from privatized seed production, mungbean production as a short season crop sandwiched between main rice crops, expansion of horticultural crops, and higher prices resulting from onion storage.

Recommendations to AID relate to continuing engagement with DOA. Recommendations to DOA emphasize market research, farm level monitoring of impact, management for results, a revised incentive structure, and flexible funding of operations.

Evaluation was based on review of documents, interviews with key project personnel DOA, DARP, USAID, related farmers, private sector and visits to DOA seed and research stations and field extension personnel.

Lessons learned include the need for (a) verification of design assumptions, (b) design and implementation flexibility with changing project and policy environment and (c) ensuring that recipient agencies involve and build support of their ultimate clients.

COSTS

I. Evaluation Costs

1. Evaluation Team Name / Affiliation	Contract Number OR TDY Person Days	Contract Cost OR TDY Cost (U.S. $)	Source of Funds
Dr. James A. Chapman (Economist), Chemonics International Consulting Div. Washington D.C.	PDC-1406-1-00-0033-000. DO.28 (60PD)	$52,919	USAID/SRI LANKA
Mr. Albert L. Brown, (Ecologist) - do -			

2. Mission/Office Professional Staff Person-Days (Estimate) 21

3. Borrower/Grantee Professional Staff Person-Days (Estimate) 12

A.I.D. EVALUATION SUMMARY - PART II

SUMMARY

J. Summary of Evaluation Findings, Conclusions and Recommendations (Try not to exceed the three (3) pages provided)
Address the following items:

- Purpose of evaluation and methodology used
- Purpose of activity(ies) evaluated
- Findings and conclusions (relate to questions)
- Principal recommendations
- Lessons learned

Mission or Office:	Date This Summary Prepared:	Title And Date Of Full Evaluation Report:
USAID/SRI LANKA	JUNE 10, 1993	DIVERSIFIED AGRICULTURE PROJECT FINAL EVALUATION MAY 28, 1993.

A. Purpose of Evaluation and Methodology Used

This is the third and final evaluation of the Diversified Agriculture Research Project (DARP), conducted four months before the Project Assistance Completion Date (PACD). The evaluation was performed by two professionals with extensive experience in evaluation of Less Developed Countries (LDC) research and development organizations. The methodology included review of project documents, reports and budgets, as well as interviews with the staffs of DOA divisions, the project contractor, USAID/Colombo, and other contractors and visits to DOA facilities. Several field trips taken to DOA regional experimental stations, field demonstrations, seed farms and processing facilities provided an opportunity to interview farmers and their families. A review of statistical data, some of questionable reliability, was supplemented by information prepared at the team's request

B. Purpose of Activities Evaluated

The evaluation report includes a summary of inputs and outputs for the first and second phases of the project. However, the evaluation was focused primarily on impact towards goal and purpose indicators. Impact could not always be measured with precision, given the absence of systematic recording of farm-level adoption, and many of the most important technologies being new to Sri Lanka. However, qualitative judgements of progress were supported by enough quantitative data to suggest their reliability.

Goal-level impact indicators were increased income, employment and nutrition resulting from increased production and productivity of SFC crops. Area planted to mung bean, (greengram), big onion and cowpea increased significantly. One can infer that this expansion in production improved farmers' income, nutrition and employment. Planting of a short season crop of mung bean between rice crops -- a completely new technology -- represents an even more powerful impact by providing a net addition to crop area, labor utilization and farm incomes. Another new technology -- onion storage -- increases the price farmers receive.

The purpose of DARP was to strengthen the institutional capability of the DOA to generate and effectively transfer technologies and seed required to increase and sustain SFC production on small farms. The project was redesigned following the second mid-term evaluation and due to better focus it has evolved rapidly over the last two years. Therefore, EOP indicators were modestly revised to form the basis for impact measurement.

C. Findings and Conclusions

DARP has been a very good project. It has contributed materially to strengthening the DOA through the technical assistance, training, computerization, buildings, and equipment provided, and through the Special Projects Fund which facilitated the implementation of innovative DOA activities. The following are major propose-level impacts:

o Research. DOA has developed and released 13 varieties of 8 SFCs. It published and updates a comprehensive Crop Techneguide of current recommendations. A technology for onion storage enables farmers to retain the crop until low harvest prices improve. DOA is now directing major attention to high value horticultural crops, both for domestic and export markets.

- Market and Farmer Influence. DOA's comprehensive four-year research workplan classified crops in four priorities, based on (a) current and prospective importance (b) probability of successful research solutions, and (c) prospective benefits to clients of applying those solutions. However, market criteria have only a general impact on planning. While DOA research is conducted on farmers' fields, and some recommendations reflect an appreciation of farmer needs and constraints, formal farmer involvement in research planning and follow-up on impact is lacking.

- Seed Production and Distribution. DARP was able to assist the DOA in changing seed production from a wholly public sector activity to a private sector enterprise. Seed policy now permits private imports of seed. In Maha 1992/93 ten percent (450MT) of commercially marketed seed paddy was privately produced and distributed and this is expected to rise to 1400 MT (25 percent of commercial sales) in Yala 1993. By 1994, the private industry will be capable of supplying 98% of commercial seed paddy. The private seed industry now supplies more than double the amount of chilly seed provided by DOA, and this ratio will quintuple by 1994.

- Farming Systems Research and Socio-Economic Research. DARP has had minimal impact in influencing DOA decision making through incorporation of socioeconomic factors in technology generation and transfer. DOA is still strongly commodity-focused. There are, however, some recent indications of progress in this regard. Work with both mung bean and big onion indicates increasing resolution of farmers' production and marketing constraints, while the 1993-97 research plan cites economic impact as the top criterion for developing and assigning research priorities.

- Management. Formal inter-divisional management systems for SFC-related activities are still constrained by structural rigidities, so DARP's management influence was expressed through repeating methods, e.g., work planning, with individual Divisions, and more recently with management training for the senior DOA management team. There does appear to be a generalized improvement in attitude, marked by greater innovation, derived from having met successfully the challenges posed by changing policies.

- Technology Transfer. Since the devolution of the field level agricultural extension activities to Provincial Councils in 1991, the role of the DOA Technology Transfer Division changed from providing a direct link between DOA and the farmer to supporting provincial agents and transferring technology directly to the farmer through mass communications. DOA has capability and has demonstrated the capacity to conduct tightly scheduled multi-media campaigns.

Special evaluation issues were concerned with DARP's impact on crop diversification and sustainability:

- Diversification. An initial DARP assumption was that the emphasis on self sufficiency in rice limited research on subsidiary food crops. In fact, rice research was only about one-fourth of total research in 1984/85 and remained at that proportion in 1991/92. However, the total level of research activity increased by 62 percent during that period, so the level of effort on subsidiary food crops has maintained a growth rate comparable to that of rice.

- Sustainability. The DOA's institutional capacity has increased significantly through LT degree and other training, management training, introduction and use of computerization, acquisition of germplasm, construction of seed warehouses, provision of seed equipment, budget plans for private seed enterprises and regular advisory services. This capacity is now established and functional. DOA was a full participant in the changes in substantive program content, which are continuing DOA concerns. We conclude that the substantive content of the program is sustainable.

- Most of DOA foreign exchange costs will continue to be met by ongoing and planned WB and other donor projects. However, local operating costs provided by the DARP Special Projects Fund cannot be met by the DOA domestic budget, which is heavily dedicated to personnel emoluments and other fixed costs. DOA's performance efficiency will be affected if DOA cannot replace this with more flexible funding.

D. Principal Recommendations

As final evaluation, operational recommendations were directed to DOA, while recommendations to USAID focus on utilization and support of capacity installed by DARP. Much of the DARP investment is just beginning to bear fruit, and this harvest will continue and expand. We believe that a special effort by the Mission to remain engaged will serve AID's interest through continued collaboration, and will be welcomed by DOA.

Recommendations to DOA include:

- Increased efforts on economic research on both domestic and international markets and the costs, prices and qualities required to compete therein.
- Systematic measurement and recording of the impact of accomplishments at the farmer/client level.
- Revision of incentive structures (monetary and non-monetary) to encourage individual and collective effort on achieving client-level economic impact.
- Continued development of management capabilities, particularly along the lines of management for results.
- Establishment of an annual allotment of funds, restricted to non-recurrent costs, to provide operational flexibility.
- Establishment of a private sector service office to facilitate interchange on commercial opportunities.

E. Lessons Learned

- Design assumptions need to be questioned, and if possible proved. Two of the design assumptions were inaccurate.
- Design and implementation flexibility are both essential to keep up with changing policies and ideologies, and better understanding of the project environment.
- The substantial support provided by donors may allow recipient agencies to set their agendas without involving their ultimate clients. Recipient agencies must involve and build support of their ultimate clients.

ATTACHMENTS

K. Attachments (List attachments submitted with this Evaluation Summary; always attach copy of full evaluation report, even if one was submitted earlier; attach studies, surveys, etc., from "on-going" evaluation, if relevant to the evaluation report.)

Final Evaluation, Diversified Agriculture Research Project

Project No. 383-0058

COMMENTS

L. Comments By Mission, AID/W Office and Borrower/Grantee On Full Report

This final Evaluation is unbiased and represents a clear and impartial view of project progress to date. It has also identified key areas of future Mission and GSL/DOA activity.

Certain operational recommendations are directed to the DOA, while recommendations to USAID focus mainly on utilization and supporting capacity installed by DARP. It has correctly assessed that DARP investments have begun to bear fruit and emphasizes that the Mission remain engaged with the DOA through continued collaboration after the PACD.

E:\SUMMARY.AA
August 11, 1993.

1. RECORD ALL INPUT ON THIS FORM. READ THE ATTACHED INSTRUCTIONS
2. USE LETTER QUALITY TYPE, NOT DOT MATRIX TYPE

IDENTIFICATION DATA

A. Reporting A.I.D. Unit:

Mission or AID/W Office USAID/SRI LANKA
(ES# _____)

B. Was Evaluation Scheduled In Current FY Annual Evaluation Plan?
Yes [X] Slipped [ ] Ad Hoc [ ]
Evaluation Plan Submission Date: FY 89 Q 3

C. Evaluation Timing
Interim [X] Final [ ]
Ex Post [ ] Other [ ]

D. Activity or Activities Evaluated (List the following information for project(s) or program(s) evaluated. If not applicable, list title and date of the evaluation report.)

Project No.	Project/Program Title	First PROAG or Equivalent (FY)	Most Recent PACD (Mo/Yr)	Planned LOP Cost (000)	Amount Obligated to Date (000)
383-0058	Diversified Agriculture Research	1984	8/92	11,400	11,400

ACTIONS

E. Action Decisions Approved By Mission or AID/W Office Director

Action(s) Required	Name of Officer Responsible for Action	Date Action to be Completed
1. Shift Short-Term Technical Assistance (ST.TA) to Long-Term Technical Assistance (LT.TA) to extend services of Chief-of- Party (COP) and Seed Specialist up to end June 1990.	USAID/RCO	8/89
2. Prepare project paper supplement (PP Supplement) based on evaluation results and for extending Project Assistance Completion Date (PACD) by 24 months up to end August 1994 and obtain authorization for project amendment.	USAID	9/89
3. Amend Project Agreement (ProAg) with additional funds for extension.	GSL/USAID	12/89
4. Procure additional TA services for increasing LT.TA for COP, Seed, Horticulture, Economics, Media and ST.TA as needed and increase LT and ST Training to cover priority areas.	USAID/RCO	1/90

(Attach extra sheet if necessary)

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APPROVALS

F. Date Of Mission Or AID/W Office Review Of Evaluation: (Month) (Day) (Year)

G. Approvals of Evaluation Summary And Action Decisions:

	Project/Program Officer	Representative of Borrower/Grantee	Evaluation Officer	Mission or AID/W Office Director
Name (Typed)	S.H. Charles Allison Brown	Irwin Gunawardena DOA Director	Jan Emmert	George Jones
Signature			Jan Emmert	George Jones
Date		Aug. 2, 89		

3. Provide English Language Training to DOA scholars.	DOA	Immediately
4. Provide adequate cadre of agriculture economists in the Research Division's Regional Research Centres (RRC) to increase emphasis on economic and social factors in crop production and marketing.	DOA/MAFC	1/90
5. Plan and implement a program for intensification of 'whole farm' economic studies, and comprehensive ongoing marketing policy analysis studies.	DOA/Contractor	FY/90
6. Develop strategy and plans to intensify research on (a) farming systems, (b) dryland farming and (c) horticultural crop.	DOA/Contractor	FY/90
7. Finalize action plan on Seed Restructuring Program setting a timeframe for increasing private sector role, liberalization and expansion of marketing, establishment of seed regulatory services and reduction of government participation in commercial production.	DOA/Contractor USAID	12/89
8. Expedite delayed commodity procurement and complete all procurements.	DOA/USAID	12/90
9. (a) Resolve present delays in construction and complete all planned construction.	DOA/USAID	12/90
(b) Amend Architectural and Engineering Services Contract (A&E Services) with Resource Development Consultants (RDC) to accomodate extended construction period.	DOA	Immediate
10. (a) Formulate proposals to strengthen mass media and communication program within the Dept. of Agric. in the context of the devolution of extension activities.	DOA/MAFC USAID/Contractor	3/90
(b) Provide commodity and STTA support to mass media program.	USAID/DOA Contractor	6/90
(c) Publish research recommendations and extension publications.	DOA/Contractor USAID	FY/90
11. Plan and implement effective management seminars, workshops, group discussions, trainings, development of information management systems, and program budgeting.	DOA/Contractor USAID	FY/90
12. Develop proposals for Phase II of DARP.	DOA/USAID	

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ABSTRACT

H. Evaluation Abstract (Do not exceed the space provided)

This is an institution building project to strengthen the research, extension, seed and overall management capabilities of the Department of Agriculture (DOA) to generate and effectively transfer technologies and seed required to increase and sustain production of subsidiary field crops (SFC) on small farms. The project is being implemented by the Department of Agriculture with technical assistance and training provided under a USAID direct contract with Development Alternatives Inc.

This second interim (mid-term) evaluation completed at the fourth year mark of this eight year project was conducted by an outside evaluation team who based their conclusions and recommendations on project documentation, interviews with all key personnel, meetings with allied project staff and private sector as well as field trips to five major Regional Research Centers, Seed Farms and facilities and parts of the Mahaweli Irrigation System. The purpose of the evaluation was to assess project implementation and progress to date and recommend future directions. The major findings and conclusions are:

* Overall institutional capacity of the DOA has increased and the project, although complex, is based on a sound rationale and is well designed.
* Civil unrest caused delay in implementing some project activities.
* Initial assumptions related to certain levels of GSL/DOA capabilities and funding were not fully realised.
* Agronomic and SFC research has been extensive but little Farming System Research has been conducted.
* Scheduled project time frame is unrealistically short to accomplish project purpose.
* Good progress has been made in training and series of workshops and seminars have been effectively utilized to support project objectives.
* Clear momentum for seed commercialization has been established and the seed program is moving well.
* The Life of Project Work Plans have become the most effective instrument for project management, enhancing focus and prioritisation of project activities.
* The commodity procurement and construction work have lagged behind. However, this situtation is being remedied.
* Because of the project's strategic importance in Sri Lankan agriculture, Evaluators have recommended -
  (a) an extension of the PACD by 2 years, and
  (b) a second phase of the Project.
* The evaluators noted the following "lessons":

  A shift in research emphasis requires considerable restructuring for a national system and takes more time and resources than is generally supposed. Projects with a mix of technical assistance and a large facilities construction are likely to be hindered by delays; introducing unfamiliar procedures exacerbates these problems.

COSTS

I. Evaluation Costs

1. Evaluation Team

Name	Affiliation	Contract Number OR TDY Person Days	Contract Cost OR TDY Cost (U.S. $)	Source of Funds
Dr. Elmer R. Kiehl Dr. Gurbachan S. Dhillon Dr. Fritz von Fleckenstein Mr. Neil S. Evenson	DEVRES, Inc. Washington DC.	PDC-0085-1-6095-00	$121,868	USAID/ Sri Lanka

2. Mission/Office Professional Staff Person-Days (Estimate) 60

3. Borrower/Grantee Professional Staff Person-Days (Estimate) 120

SUMMARY

J. Summary of Evaluation Findings, Conclusions and Recommendations (Try not to exceed the three (3) pages provided)
Address the following items:

- Purpose of evaluation and methodology used
- Purpose of activity(ies) evaluated
- Findings and conclusions (relate to questions)
- Principal recommendations
- Lessons learned

Mission or Office:	Date This Summary Prepared:	Title And Date Of Full Evaluation Report:
USAID/Sri Lanka	June 15, 1989	Second Interim Evaluation May 11,1989 Diversified Agriculture Research Project

A. Background

This evaluation was initiated by USAID/Sri Lanka. The full evaluation report is titled Second Interim Evaluation, Sri Lanka Diversified Agriculture Research Project (DARP) (No. 383-0058) and is dated May 11, 1989.

This project began in August, 1985, and extends to August, 1992. The main focus of the project is the strengthening of the Government of Sri Lanka (GSL) institutional capacity to develop and transfer to small farmers the improved technologies and seeds required to sustain the production of subsidiary food crops (SFC), including coarse grains, oilseeds and pulses, to improve the income of small farmers and to improve the nutritional status of the population.

B. Evaluation Purposes and Procedure

1. Purpose

The purpose of this mid-term evaluation is to assess progress to date and give recommendations for future directions. Important aspects of the project which were assessed include: modifications to improve the likelihood of achieving the project purpose; the delivery of AID and GSL project input; the progress toward achieving the Life of Project (LOP) Implementation Plan; the performance of the Technical Assistance Contractor; the validity of initial design assumptions and strategies; and the adequacy of the planned financial resources, time and technical assistance to achieve the project purpose.

2. Procedure

The methodology employed in this evaluation included interviews with USAID executives, project managers, staff of the MAFC, DOA, and the University of Peradeniya, returned scholars, and representatives of donor organizations; visits to a number of facilities; and review of pertinent documents relating to this project.

C. Findings and Conclusions

1. This project is extremely complex, although it is based on a sound rationale and is well designed. However, it is also based on set of assumptions which were not fully realized at the time of design, which could well result in less than the expected achievement. There was less than the expected level of: capability of GSL for timely financial and manpower support for research and extension; collaboration between the Extension, Education and Training, and Research Divisions; and capability of Department of Agriculture to effectively organize and program the shift to SFC. Political instability was a deterrent to implementing some project activities. The scheduled timeframe is unrealistically short to accomplish project purpose.

2. Overall institutional capacity has increased especially in terms of internal linkages and in research and seeds components less so in extension and management.

3. Long-term training is moving forward satsifactorily despite earlier serious problems in the split degree programming and management between DOA and the Post Graduate Institute for Agriculture (PGIA) of the University of Peradeniya. An innovative split degree proposed by Oregon State University (OSU) recently adopted by DOA should be helpful. Several scholars whose training in certain disciplines is essential will fail to obtain the necessary level of TOEFL scores.

4. Short-term training, workshops and seminars have been effectively utilized in topics strongly supportive of project objectives.

5. GSL tendering procedures have slowed progress on both commodity procurement and construction elements of the project and reduced effectiveness of technical assistance.

6. Social and economic research studies are underway and have had a significant impact, but no whole-farm studies have been conducted.

7. Agronomic and SFC research has been extensive, but little farming systems research has been conducted. New varieties have been developed but not released and research results and manuals have been written but not published or packaged for extension.

8. Good progress has been achieved in the seed production, processing and distribution component of the project and a momentum for commercialization has been established.

9. Revitalization of the Regional Technical Working Groups greatly strengthened collaboration between research and extension and improved both research and extension programming.

10. The DOA LOP workplans have become the most effective instrument for project management, enhancing focus and prioritisation of research and extension and seeds division activities on the SFC by establishing annually stepwise targets and assessments of progress.

11. The technical assistance contractor, Development Alternatives Inc. (DAI) has effectively assisted the DOA in the DARP, provided qualified staff on a timely basis. The Institute of International Education (IIE) managed the training component satisfactorily. Much of the progress of DARP to date reflects on the innovative approaches and skills provided by the team.

D. Recommendations

1. Within Present Contract

DOA should continue to develop and implement annual workplans for SFC, maintain the presence of Division of Agriculture Economics and Division of Extension in RRC, assign returned scholars to RRC, and upgrade English competency of candidates for long-term training. GSL and USAID should improve management of construction and procurement tendering procedures. DOA should speed publication of research and extension materials, do multivariate analyses on baseline data, and conduct a follow-up monitoring study at the end of this phase. DOA and USAID should support research efforts in the Dry Zone in cooperation with other USAID projects. USAID should continue technical assistance to the Seeds Division. USAID and DARP should use the remaining short-term TA for market analysis, dryland agronomy, media and publications.

2. Recommendation for Two Year Extension

Extension of DARP is critical. The original time was unrealistically short to accomplish project purpose. Institutional capacity of DOA has increased. Investments made are at threshold of yielding significant increases in capacity. The absorptive capacity of DOA for TA has increased so that further investment in a higher level of TA can be effectively utilized now for higher payoff. LTTA should be continued for the seed component and additional TA provided for horticulture, marketing/policy economics and extension media. STTA should include an agronomist and water management specialist. Training for ten scholars to M.Sc level in extension and continued funding for project innovation should be provided.

3. Recommendations for Phase II

DARP Phase II should continue to be based on USAID Mission strategy of increasing rural incomes and commercialization of key inputs. To insure improved efficiency of the DOA in the context of the ongoing GCL decentralization process, high priority efforts are needed in strengthening regional research and extension capabilities, provision of continued and expanded TA (particularly in the areas of horticulture, economics and mass media), staff development programs (both ST and LT training) so as to fill gaps in essential disciplines, and introduction of DOA program planning and budgeting for efficient utilization of financial and manpower resouces. Further TA and other project inputs are needed to sustain and increase the level of commercialization of the seed industry.

E. Lessons Learned

1. A shift in research emphasis requires considerable restructuring for a national system, and takes more time and resources than is generally supposed.

2. Projects with a mix of technical assistance and large facilities construction are likely to be hindered by delays; introducing unfamiliar procedures exacerbates these problems.

ATTACHMENTS

K. Attachments (List attachments submitted with this Evaluation Summary; always attach copy of full evaluation report, even if one was submitted earlier; attach studies, surveys, etc., from "on-going" evaluation, if relevant to the evaluation report.)

Second Interim Evaluation, Diversified Agriculture Research, Sri Lanka

Project No. 383-0058.

COMMENTS

L. Comments By Mission, AID/W Office and Borrower/Grantee On Full Report

This evaluation is unbiased and represents a clear and impartial view of project progress to date. The Mission has endorsed all major recommendations which have been reworded as concise, action-oriented statements and listed in Part One of the AID Evaluation Summary in order of Mission priority. Together with the Government of Sri Lanka, the Mission intends to address all of the Part One recommendations by mutual agreement through Project Implementation Letters.

(BEFORE FILLING OUT THIS FORM, READ THE ATTACHED INSTRUCTIONS)

A. REPORTING A.I.D. UNIT: USAID/Sri Lanka (Mission or AID/W Office)

(ES# 87/7)

B. WAS EVALUATION SCHEDULED IN CURRENT FY ANNUAL EVALUATION PLAN? yes ☒ slipped ☐ ad hoc ☐

Eval. Plan Submission Date: FY ___ Q ___

C. EVALUATION TIMING Interim ☒ final ☐ ex post ☐ other ☐

D. ACTIVITY OR ACTIVITIES EVALUATED (List the following information for project(s) or program(s) evaluated; If not applicable, list title and date of the evaluation report)

Project #	Project/Program Title (or title & date of evaluation report)	First PROAG or equivalent (FY)	Most recent PACD (mo/yr)	Planned LOP Cost ('000)	Amount Obligated to Date ('000)
383-0058	Diversified Agriculture Research	1984	8/92	11,400	11,400

E. ACTION DECISIONS APPROVED BY MISSION OR AID/W OFFICE DIRECTOR

Action(s) Required	Name of officer responsible for Action	Date Action to be Completed
Approve all Participant study programs by all rties concerned and appoint a PGIA supervisor ior to any participant's departure from Sri nka for overseas studies.	DOA, PGIA	Immediately
Appoint a part-time coordinator assigned and porting directly to the Director of riculture for all split training programs with e Post Graduate Institute of Agriculture GIA).	DOA	January 31, 1988
Authorize adequate budget allocations for -country training costs of long term rticipant trainees.	DOA	GSL FY 1988
Authorize an increase in the participant aining in-country research allowance from 080 to $1200/student/year.	DOA, USAID	December 31, 1987
Explore the possibility of joint degree ograms with U.S. Universities.	DAI, IIE	Immediately

(Attach extra sheet if necessary)

F. DATE OF MISSION OR AID/W OFFICE REVIEW OF EVALUATION: mo 11 day 23 yr 87

G. APPROVALS OF EVALUATION SUMMARY AND ACTION DECISIONS:

Project/Program Officer	Representative of Borrower/Grantee	Evaluation Officer	Mission Dir/AID/W Office Director
Charles Strickland	Irwin Gunawardena DOA Director	Richard McLaughlin	Peter J. Bloom
Date: 1/6/88	Date:	Date: 12/31/87	Date: 1/17/88

6. Provide commodity support to PGIA for the implementation of in-country degree training activities.	DOA USAID	December 31, 1987
7. Enroll the two ongoing Ph.D participants and the remaining three Ph.D participants in full U.S. degree programs, with research carried out in Sri Lanka.	DOA, PGIA DAI, USAID	January 31, 1988
8. Increase DAI contract technical assistance by 70 PM (54 PM long term and 16PM short term).	MF&P, MADR, DOA, USAID	March 31, 1988
9. Develop a stratagy and plan to carry out research to emphasize minimizing the production costs of SFC's.	DOA, DAI	GSL FY 1988
10. Establish a "Special Project Fund" in the DOA budget, funded by the DARP grant, to support innovative projects.	DOA, MADR USAID	January 31, 1988
11. Establish a small discretionary fund for urgent incidental operational expenses for the DAI contract team.	DOA, MADR USAID	January 31, 1988
12. Plan and implement a series of management workshops covering topics such as management information systems and program planning and budgeting.	DAI, DOA	GSL FY 1988, 1989
13. Provide a short term management information specialist for a review of technical and administrative information flows and to design and assist in implementation of an improved information system.	DAI, DOA	GSL FY 1988
14. Design and implement middle and upper management in-country training programs.	DAI, DOA	GSL FY 1988, 1989

Cont. E.

15. Develop a policy paper which specifies the DAEP role in analysis of policy in the program of the DOA.	DOA	GSL FY 1988, 1989
16. Complete the recruitment of additional staff positions required to implement the DAR program or reallocate staff to DARP within the DOA personnel allocation.	MF&P MADR DOA	GSL FY 1988
17. Increase the number of research studies focusing on market problems.	DOA, DAI	GSL FY 1988
19. MADR should review existing GSL pricing and other policies related to SFC production, importation and marketing and arecommend any necessary policy amendments to encourage the consumption of local SFC production and promote expanded SFC exports.	MADR	GSL FY 1988
20. Immediately increase the activity of the Social Science Review Sub-Committee including initiation of the small grants program.	DOA, DAI USAID	Immediately
21. Use PL 480 resources to support the restructuring of the seed industry.	USAID GSL	U.S. FY 1988
22. Reassess specifications for future procurement of seed processing equipment to allow potential utility for service to the private sector seed industry.	DOA, DAI, USAID	GSL FY 1988
23. Expand and accelerate the FSR/E pilot programs at Maha Ilupalama and Aralaganwila.	DOA DAI	GSL FY 1988
24. Formulate an integrated plan for SFC extension emphasizing marketing and market quality requirements.	DOA	GSL FY 1988
25. Utilize direct DOA shelf-item procurement whenever possible.	DOA, USAID	GSL FY 1988

* In each case the primary action agent is listed first.

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DIVERSIFIED AGRICULTURE RESEARCH PROJECT

COMMODITY MANAGEMENT SYSTEM USAID-SRI LANKA

MONITORING AND UTILIZATION REPORT

CATEGORY	REF NO	COMMODITY DESCRIPTION	MAKE/MODEL	SERIAL NUMBER	QUANTITY	U/PRICE	T/PRICE	DATE RECD	DATE DIST	LOCATION	GEL/INVENTORY	DATE TRSP	EMBLEM	DATE DISPOS
OFFICE EQUIPMENT	4034	3.5 1.44MB Disk. DYSANOSHD			30			12/30/91	/ /			/ /	YES	/ /
OFFICE EQUIPMENT	4035	5.25 1.2MB Disk. DYSANOSHD			20			12/30/91	/ /			/ /	YES	/ /
OFFICE EQUIPMENT	4036	60 MB Archive Tapes (Cassetts)			10			12/30/91	/ /			/ /	YES	/ /
OFFICE EQUIPMENT	3944	Air Conditioner			1			09/27/90	/ /			/ /	YES	/ /
OFFICE EQUIPMENT	170	BINDER	GESTETNER VB-50	---NOT AVAL---	1	557.50	557.50	08/01/89	/ /	DARP OFFICE PERADENIYA		12/03/91	YES	/ /
OFFICE EQUIPMENT	178	COMMUNICATION EQUIPMENT	SONY WALKMAN RADIO F65	26698	1	143.00	143.00	/ /	/ /	DARP-PERADENIYA		12/03/91	YES	/ /
OFFICE EQUIPMENT	146	COMPUTER EQUIPMENT	KAYPRO PC-30	500508	1	4,893.51	4,893.51	08/02/89	/ /	C.A(ACCT.SAL.I)	SB/1/37/ACCT.SAL.I & SB/8	09/03/91	YES	/ /
OFFICE EQUIPMENT	147	COMPUTER EQUIPMENT	KAYPRO PC-30	499541	1	4,893.51	4,893.51	08/02/89	/ /	REGISTRAR(PESTIP/DENIYA	SB/1/37/ACCT.SAL.I & SB/8	09/03/91	YES	/ /
OFFICE EQUIPMENT	148	COMPUTER EQUIPMENT	KAYPRO 286-I	497768	1	5,553.49	5,553.49	08/13/89	/ /	D.A-PERADENIYA	SB/3/34/D.A.-SB/9/15-16(S	09/03/91	YES	/ /
OFFICE EQUIPMENT	149	COMPUTER EQUIPMENT	KAYPRO 286-I	497435	1	5,553.49	5,553.49	08/13/89	/ /	S.C.S-GANNORUWA	SB/3/34/D.A.-SB/9/15-16(S	/ /	YES	/ /
OFFICE EQUIPMENT	150	COMPUTER EQUIPMENT	KAYPRO 286-I	498036	1	5,553.49	5,553.49	08/13/89	/ /	DDS-PERADENIYA	SB/3/34/D.A.-SB/9/15-16(S	09/03/91	YES	/ /
OFFICE EQUIPMENT	151	COMPUTER EQUIPMENT	KAYPRO 286-I	464472	1	5,553.49	5,553.49	08/13/89	/ /	EDMIR-PERADENIYA	SB/3/34/D.A.-SB/9/15-16(S	09/03/91	YES	/ /
OFFICE EQUIPMENT	153	COMPUTER EQUIPMENT	IBM DESK TOP COMPUTER	1368859	1	9,251.50	9,251.50	10/01/85	/ /	DARP OFFICE		12/03/91	YES	/ /
		[illegible]	IBM PORTABLE COMPUTERS	0249647	1	2,046.22	2,046.22	[illegible]	-	DARP OFFICE PERADENIYA		/ /	YES	/ /
OFFICE EQUIPMENT	163	COMPUTER EQUIPMENT	KYPRO H/D PORTABLE COMPU	309681	1	2,227.50	2,227.50	11/01/85	/ /	DARP OFFICE PERADENIYA		12/03/91	YES	/ /
OFFICE EQUIPMENT	3915	Chain Hoist			1			07/10/90	/ /			/ /	YES	/ /
OFFICE EQUIPMENT	3916	Chain Hoist			1			07/10/90	/ /			/ /	YES	/ /
OFFICE EQUIPMENT	3917	Chain Hoist			1			07/10/90	/ /			/ /	YES	/ /
OFFICE EQUIPMENT	3929	Computer IBM Personal			1			07/10/90	/ /			/ /	YES	/ /
OFFICE EQUIPMENT	3924	Computer IBM/PC/IT			1			07/10/90	/ /			/ /	YES	/ /
OFFICE EQUIPMENT	3925	Computer IBM/PC/IT			1			07/10/90	/ /			/ /	YES	/ /
OFFICE EQUIPMENT	3926	Computer IBM/PC/IT			1			07/10/90	/ /			/ /	YES	/ /
OFFICE EQUIPMENT	3927	Computer IBM/PC/IT			1			07/10/90	/ /			/ /	YES	/ /
OFFICE EQUIPMENT	3928	Computer IBM/PC/IT			1			07/10/90	/ /			/ /	YES	/ /
OFFICE EQUIPMENT	4040	Computer Paper 132 Column			10			12/30/91	/ /			/ /	YES	/ /
OFFICE EQUIPMENT	4039	Computer Paper 80 Column			30			12/30/91	/ /			/ /	YES	/ /
OFFICE EQUIPMENT	4021	Computer Paper Packets			7			10/28/91	/ /			/ /	YES	/ /
						TOTAL	46,276.49							

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DIVERSIFIED AGRICULTURE RESEARCH PROJECT

COMMODITY MANAGEMENT SYSTEM USAID-SRI LANKA

MONITORING AND UTILIZATION REPORT

CATEGORY	REF NO	COMMODITY DESCRIPTION	MAKE/MODEL	SERIAL NUMBER	QUANTITY	U/PRICE	T/PRICE	DATE RECD	DATE DIST	LOCATION	GSL/INVENTORY	DATE INSP	EPOLEM	DATE DISPOS
OFFICE EQUIPMENT	3913	Continuation Trays			500			07/10/90	/ /			/ /	YES	/ /
OFFICE EQUIPMENT	3914	Continuation Trays			504			07/10/90	/ /			/ /	YES	/ /
OFFICE EQUIPMENT	3912	Continuation sheets			500			07/10/90	/ /			/ /	YES	/ /
OFFICE EQUIPMENT	154	DESK-TOP COMPUTER	IBM DESK TOP COMPUTER	5503169	1	9,251.50	9,251.50	10/01/85	/ /	DARP OFFICE		12/03/91	YES	/ /
OFFICE EQUIPMENT	52	DICTATION SYST W/POCKET MEMO	PHILLIPS		1	739.95	739.95	12/16/88	/ /	DD'S OFFICE PERADENIYA	10/7169/(NEW)	/ /	YES	/ /
OFFICE EQUIPMENT	4028	Disk Drive			2			10/28/91	/ /			/ /	YES	/ /
OFFICE EQUIPMENT	4029	Disket Storage Boxes			2			10/28/91	/ /			/ /	YES	/ /
OFFICE EQUIPMENT	4037	Disket. Storage Boxes 3.5"			10			12/30/91	/ /			/ /	YES	/ /
OFFICE EQUIPMENT	4038	Disket. Storage Boxes 5.25"			5			12/30/91	/ /			/ /	YES	/ /
OFFICE EQUIPMENT	4032	Diskette Storage Boxes 3.5			5			12/30/91	/ /			/ /	YES	/ /
OFFICE EQUIPMENT	4033	Diskette Storage Boxes 5.25			5			12/30/91	/ /			/ /	YES	/ /
OFFICE EQUIPMENT	4022	Disketts	Maxell		20			10/28/91	/ /			/ /	YES	/ /
OFFICE EQUIPMENT	4023	Disketts	Maxell		20			10/28/91	/ /			/ /	YES	/ /
OFFICE EQUIPMENT	4024	Disketts	Maxell		20			10/28/91	/ /			/ /	YES	/ /
OFFICE EQUIPMENT	4020	Disketts			2			10/28/91	/ /			/ /	YES	/ /
OFFICE EQUIPMENT	3879	Duplicating Machine	Gestetner	2A46387	1			07/30/90	/ /			/ /	YES	/ /
OFFICE EQUIPMENT	155	ELECTRIC TYPEWRITERS	IBM SYSTEM 2000	6746-2001495	1	1,282.00	1,282.00	10/01/85	/ /	DARP OFFICE PERADENIYA		12/23/91	YES	/ /
OFFICE EQUIPMENT	3989	Extention Cable			1			/ /	/ /			/ /	YES	/ /
OFFICE EQUIPMENT	3990	Extention Cable			1			/ /	/ /			/ /	YES	/ /
OFFICE EQUIPMENT	3991	Extention Cable			1			/ /	/ /			/ /	YES	/ /
OFFICE EQUIPMENT	3992	Extention Cable			1			/ /	/ /			/ /	YES	/ /
OFFICE EQUIPMENT	3993	Extention Cable			1			/ /	/ /			/ /	YES	/ /
OFFICE EQUIPMENT	157	FAX MACHINES	GESTETNER-MURATA F20	2202660J	1	1,774.00	1,774.00	12/01/88	/ /	DARP OFFICE PERADENIYA		12/03/91	YES	/ /
OFFICE EQUIPMENT	4016	Fabric Ribbon for EPSON print			1			10/28/91	/ /			/ /	YES	/ /
OFFICE EQUIPMENT	4017	Fabric Ribbon for EPSON print			1			10/28/91	/ /			/ /	YES	/ /
OFFICE EQUIPMENT	4015	Fabric Ribbon for EPSON printe			1			10/28/91	/ /			/ /	YES	/ /
OFFICE EQUIPMENT	4035	Fabric Ribbon for Printer			2			10/28/91	/ /			/ /	YES	/ /

COMMODITY MANAGEMENT SYSTEM USAID-SRI LANKA

MONITORING AND UTILIZATION REPORT

DIVERSIFIED AGRICULTURE RESEARCH PROJECT

CATEGORY	REF NO	COMMODITY DESCRIPTION	MAKE/MODEL	SERIAL NUMBER	QUANTITY	U/PRICE	T/PRICE	DATE RECD	DATE DIST	LOCATION	GSL/INVENTORY	DATE INSP	EMBLEM	DATE
OFFICE EQUIPMENT	4026	Fabric Ribbon for Printer			3			10/28/91	/ /			/ /	YES	/
OFFICE EQUIPMENT	4018	Fabric Ribbon for printer			1			10/28/91	/ /			/ /	YES	/
OFFICE EQUIPMENT	4019	Fabric Ribbon for printer			1			10/28/91	/ /			/ /	YES	/
OFFICE EQUIPMENT	4020	Fabric Ribbon for printer			1			10/28/91	/ /			/ /	YES	/
OFFICE EQUIPMENT	4027	Head Cleaning Kit			1			10/28/91	/ /			/ /	YES	/
OFFICE EQUIPMENT	55	MICRO COMPUTERS	TANDY 3000 HD (40)	109327	1	6,815.00	6,815.00	08/10/88	/ /	DDR, PERADENIYA	SB/1/32/DD1(AEP)	12/03/91	YES	/
OFFICE EQUIPMENT	56	MICRO COMPUTERS	TANDY 3000 HD (40)	109388	1	6,815.00	6,815.00	08/10/88	/ /	DDAE&P,PERADENIYA	SB/1/32/DD1(AEP)	12/03/91	YES	/
OFFICE EQUIPMENT	3964	Microphones	AT812		1			/ /	/ /			/ /	YES	/
OFFICE EQUIPMENT	3985	Microphones	AT812		1			/ /	/ /			/ /	YES	/
OFFICE EQUIPMENT	3965	Microphones	AT812		1			/ /	/ /			/ /	YES	/
OFFICE EQUIPMENT	3987	Microphones	AT812					/ /	/ /			/ /	YES	/
OFFICE EQUIPMENT	3980	Microphones	AT812		1			/ /	/ /			/ /	YES	/
OFFICE EQUIPMENT	158	OVERHEAD PROJECTOR	3M 213AMD	634582	1	789.00	789.00	03/01/86	/ /	DARP OFFICE PERADENIYA		12/03/91	YES	/
								PRESENTLY NOT BEING USED AS THIS VEHICLE HAS MET WITH AN ACCIDENT - INSP. 12/3/91.						
OFFICE EQUIPMENT	156	PHOTO COPIERS	RANK-XEROX 1025	X07-320-195003	1	2,470.00	2,470.00	11/01/85	/ /	DARP OFFICE PERADENIYA		12/03/91	YES	/
								THIS COPIER IS UNSERVICEABLE. DGA HAS BEEN INFORMED BY DAI. NEEDS TO BE DISPOSED. INSP.12/3/91.						
OFFICE EQUIPMENT	167	PHOTO COPIERS	GESTETNER COPIER	15615005	1	2,393.50	2,393.50	08/01/89	/ /	DARP OFFICE PERADENIYA		12/03/91	YES	/
OFFICE EQUIPMENT	58	POCKET CALCULATORS	CANON F 65		8	17.53	140.24	09/10/86	/ /	DDAE&P,PERADENIYA	(B/1/(DM)/21(DDAE&P)	/ /	YES	/
OFFICE EQUIPMENT	160	PORTABLE COMPUTER	IBM PORTABLE COMPUTERS	0049367-5155	1	2,096.00	2,096.00	11/01/85	/ /	DARP OFFICE PERADENIYA		12/03/91	YES	/
OFFICE EQUIPMENT	162	PORTABLE COMPUTER	KAYPRO H/D PORTABLE	329694	1	2,227.50	2,227.50	11/01/86	/ /	DARP OFFICE PERADENIYA		12/03/91	YES	/
OFFICE EQUIPMENT	164	PRINTERS	EPSON-LX 86	19000487	1	312.00	312.00	11/01/86	/ /	DARP OFFICE PERADENIYA		12/03/91	YES	/
OFFICE EQUIPMENT	165	PRINTERS	OKIDATA	124666	1	485.00	485.00	11/01/85	/ /	DARP OFFICE PERADENIYA		12/03/91	YES	/
								THIS PRINTER IS PRESENTLY UNSERVICEABLE - 12/3/91.						
OFFICE EQUIPMENT	166	PRINTERS	EPSON-FX 85 PRINTER	03039600	1	565.00	565.00	10/01/86	/ /	DARP OFFICE PERADENIYA		12/03/91	YES	/
OFFICE EQUIPMENT	168	PRINTERS	SUPER FIVE PRINTER	SMCW026086	2	418.00	836.00	11/01/85	/ /	DARP OFFICE PERADENIYA		12/03/91	YES	/
OFFICE EQUIPMENT	169	PRINTERS	EPSON LX800 PRINTER	24044053	1	345.00	345.00	03/01/89	/ /	DARP OFFICE PERADENIYA		12/03/91	YES	/
OFFICE EQUIPMENT	57	PRINTERS STAR NB.		50502317	2			08/10/88	/ /	DDR/DG&EMP,PERADENIYA	SB/1/32/DD1(AEP)	03/03/91	YES	/
OFFICE EQUIPMENT	4031	Printer Head for Printer			1			10/28/91	/ /			/ /	YES	/
OFFICE EQUIPMENT	3872	Project Screen			1			07/25/92	/ /			/ /	YES	/
OFFICE EQUIPMENT	3873	Project Screen			1			07/25/92	/ /			/ /	YES	/
						TOTAL	85,533.97							

COMMODITY MANAGEMENT SYSTEM (COMMODITY LISTING)

MONITORING AND UTILIZATION REPORT

DIVERSIFIED AGRICULTURE RESEARCH PROJECT

CATEGORY	REF NO	COMMODITY DESCRIPTION	MODEL/MODEL	SERIAL NUMBER	QUANTITY	U/PRICE	T/PRICE	DATE RECD	DATE DIST	LOCATION	DSC/INVENTORY	DATE INSP	EMBLEM
OFFICE EQUIPMENT	3874	Romeo Machine	Gestetner 12453		1			08/31/90	/ /			/ /	YES
OFFICE EQUIPMENT	159	SLIDE PROJECTOR	BELL & HOWELL S/PROJECTOR	507025	1	813.00	813.00	03/01/86	/ /	DARP OFFICE PERADENIYA		12/03/91	YES
OFFICE EQUIPMENT	152	SOLA POWER CONDITIONER 1 KV		637100	1	811.32	811.32	10/01/85	/ /	DARP OFFICE PERADENIYA		/ /	YES
OFFICE EQUIPMENT	3870	Slide Projectors	KIKI 850	0065004/0165002	1			02/15/91	/ /			/ /	YES
OFFICE EQUIPMENT	3871	Slide Projectors	KIKI 850	0065004/0165002	1			02/15/91	/ /			/ /	YES
OFFICE EQUIPMENT	3875	Stencil Scanner	Gestetner		1			08/31/90	/ /			/ /	YES
OFFICE EQUIPMENT	3882	Stencil Scanning Machine	Gestetner	50020806	1			07/30/90	/ /			/ /	YES
OFFICE EQUIPMENT	62	TYPEWRITERS-ELECTRIC	FACIT MOD.2001	17-0065619	1	636.30	636.30	08/20/86	/ /	DDA&AP,PERADENIYA	18/1/64(DD)(AEW)	/ /	YES
OFFICE EQUIPMENT	57	UPS/1KVA	MUD-1065		2			08/12/88	/ /	DDR/DDA&AP,PERADENIYA	58/1/32/DD(AEP)	/ /	YES
FIELD EQUIPMENT	3945	Air Screen Cleaner	Cripcen NW 342		1			04/30/91	/ /			/ /	YES
FIELD EQUIPMENT	3946	Air Screen Cleaner	Cripcen NW 342		1			04/30/91	/ /			/ /	YES
FIELD EQUIPMENT	3947	Air Screen Cleaner	Cripcen NW 342		1			04/30/91	/ /			/ /	YES
FIELD EQUIPMENT	3948	Air Screen Cleaner	Cripcen		1			04/30/91	/ /			/ /	YES
FIELD EQUIPMENT	3949	Air Screen Cleaner	Cripcen NW 342		1			04/30/91	/ /			/ /	YES
FIELD EQUIPMENT	3950	Air Screen Cleaner	Cripcen		1			04/30/91	/ /			/ /	YES
FIELD EQUIPMENT	4281	Blowers hand held			4	32,924.00	131,696.00	/ /	/ /			/ /	YES
FIELD EQIPMENT	1	CORN PLANTERS	POWELL		1	1,639.00	1,639.00	10/14/88	/ /	PELVEHERA	19/7/85/(AEW)	09/02/91	YES
FIELD EQIPMENT	2	CORN PLANTERS	POWELL		1	1,639.00	1,639.00	10/14/88	/ /	PELVEHERA	19/7/85/(AEW)	09/02/91	YES
FIELD EQUIPMENT	3869	Camera 35mm	Canon	4754336	1			03/08/88	/ /			/ /	YES
FIELD EQUIPMENT	3951	Cylinder Separator			1			10/07/91	/ /			/ /	YES
FIELD EQUIPMENT	3952	Cylinder Separator			1			10/07/91	/ /			/ /	YES
FIELD EQIPMENT	3	DISC HARROWS	PRIME 140-16-BIH		1	1,392.50	1,392.50	03/19/87	/ /	DDR-MAHAILUPALLAMA	58/18/7/18(AEW)	/ /	YES
FIELD EQIPMENT	4	DISC HARROWS	PRIME 140-16-BIH		1	1,392.50	1,392.50	03/19/87	/ /	DDR-MAHAILUPALLAMA	58/18/7/19(AEW)	/ /	YES
FIELD EQIPMENT	5	DISC HARROWS	PRIME 140-16-BIH		1	1,392.50	1,392.50	03/19/87	/ /	DDR-MAHAILUPALLAMA	58/18/7/18(AEW)	/ /	YES
FIELD EQIPMENT	6	DISC HARROWS	PRIME 140-16-BIH		1	1,392.50	1,392.50	03/19/87	/ /	DDR-AGUNUKOLAPALASSA	58/18/7/18(AEW)	/ /	YES
[illegible]	[illegible]	[illegible]	PRIME 140-16-BIH		1	[illegible]	[illegible]	[illegible]	/ /	DDR-AGUNUKOLAPALASSA	58/18/7/19(AEW)	/ /	YES
FIELD EQUIPMENT	8	DISC HARROWS	PRIME 140-16-BIH		1	1,392.50	1,392.50	03/19/87	/ /	MAKADURA	58/18/7/18(AEW)	/ /	YES
						TOTAL	231,323.59						

DIVERSIFIED AGRICULTURE RESEARCH PROJECT

COMMODITY MANAGEMENT SYSTEM (ASAITD-SRI LANKA)

MONITORING AND UTILIZATION REPORT

CATEGORY	REF NO	COMMODITY DESCRIPTION	MAKE/MODEL	SERIAL NUMBER	QUANTITY	U/PRICE	T/PRICE	DATE RECD	DATE DIST	LOCATION	GSL/INVENTORY	DATE INSP	EMPLOYM	DATE DI
FIELD EQUIPMENT	9	DISC HARROWS	PRIME 140-16-8IH		1	1,392.50	1,392.50	08/19/87	/ /	HARADURA	SB/18/7/18(AEW)	/ /	YES	/ /
FIELD EQUIPMENT	10	DISC HARROWS	PRIME 140-16-8IH		1	1,392.50	1,392.50	08/19/87	/ /	MAHAGALGA	SB/18/7/18(AEW)	/ /	YES	/ /
FIELD EQUIPMENT	11	DISC HARROWS	PRIME 140-16-8IH		1	1,392.50	1,392.50	08/19/87	/ /	DDR-KILINOCHCHI	SB/18/7/18(AEW)	/ /	YES	/ /
FIELD EQUIPMENT	12	DISC HARROWS	PRIME 140-16-8IH		1	1,392.50	1,392.50	08/19/87	/ /	DDR-ARAALAGANAKILA	SB/18/7/18(AEW)	/ /	YES	/ /
FIELD EQUIPMENT	13	DISC PLOWS (FURROWS)	BALDAN	03871511	1	871.00	871.00	08/19/87	/ /	GOVT.FARM PELVEHERA	SB/18/7/18(AEW)	09/02/91	YES	/ /
FIELD EQUIPMENT	14	DISC PLOWS (FURROWS)			1	871.00	871.00	08/19/87	/ /	GOVT.FARM ALUTTARAMA	SB/18/7/18(AEW)	/ /	YES	/ /
FIELD EQUIPMENT	15	DISC PLOWS (FURROWS)			1	871.00	871.00	08/19/87	/ /	GOVT.FARM BATA-ATA	SB/18/7/18(AEW)	/ /	YES	/ /
FIELD EQUIPMENT	16	DISC PLOWS (FURROWS)			1	871.00	871.00	08/19/87	/ /	GOVT.FARM BATA-ATA	SB/18/7/18(AEW)	/ /	YES	/ /
FIELD EQUIPMENT	3909	Hydraulic Jack			1			07/10/90	/ /			/ /	YES	/ /
FIELD EQUIPMENT	3910	Hydraulic Jack			1			07/10/90	/ /			/ /	YES	/ /
FIELD EQUIPMENT	3911	Hydraulic Jack			1			07/10/90	/ /			/ /	YES	/ /
FIELD EQUIPMENT	17	INVERTED T-SEEDERS			10	193.64	1,936.40	10/28/87	/ /	DDR(EXT)PERADENIYA	1/53(87)CS	/ /	YES	/ /
FIELD EQUIPMENT	3899	Quick Moisture Meter			1			07/10/90	/ /			/ /	YES	/ /
FIELD EQUIPMENT	3900	Quick Moisture Meter			1			07/10/90	/ /			/ /	YES	/ /
FIELD EQUIPMENT	3901	Quick Moisture Meter			1			07/10/90	/ /			/ /	YES	/ /
FIELD EQUIPMENT	3902	Quick Moisture Meter			1			07/10/90	/ /			/ /	YES	/ /
FIELD EQUIPMENT	3903	Quick Moisture Meter			1			07/10/90	/ /			/ /	YES	/ /
FIELD EQUIPMENT	3906	Quick Moisture Meter			1			07/10/90	/ /			/ /	YES	/ /
FIELD EQUIPMENT	3907	Quick Moisture Meter			1			07/10/90	/ /			/ /	YES	/ /
FIELD EQUIPMENT	3908	Quick Moisture Meter			1			07/10/90	/ /			/ /	YES	/ /
FIELD EQUIPMENT	18	RIDGERS	BIGMAN	PF001	1	640.63	640.63	08/19/87	/ /	GOVT.FARM PELVEHERA	SB/18/7/18(AEW)	09/02/91	YES	/ /
FIELD EQUIPMENT	19	RIDGERS	BIGMAN	PF002	1	640.63	640.63	08/19/87	/ /	GOVT.FARM PELVEHERA	SB/18/7/18(AEW)	09/02/91	YES	/ /
FIELD EQUIPMENT	20	RIDGERS	BIGMAN	PF003	1	640.63	640.63	08/19/87	/ /	GOVT.FARM PELVEHERA	SB/18/7/18(AEW)	09/02/91	YES	/ /
FIELD EQUIPMENT	21	RIDGERS			1	640.63	640.63	08/19/87	/ /	GOVT.FARM ALUT ARAMA	SB/18/7/18(AEW)	/ /	YES	/ /
FIELD EQUIPMENT	22	RIDGERS			1	640.63	640.63	08/19/87	/ /	GOVT.FARM ALUTTARAMA	SB/18/7/18(AEW)	/ /	YES	/ /
FIELD EQUIPMENT	23	RIDGERS			1	640.63	640.63	08/19/87	/ /	GOVT.FARM BATA-ATA	SB/18/7/18(AEW)	/ /	YES	/ /
FIELD EQUIPMENT	24	RIDGERS			1	640.63	640.63	08/19/87	/ /	GOVT.FARM BATA-ATA	SB/18/7/18(AEW)	/ /	YES	/ /
						TOTAL	246,798.40							

COMMODITY MANAGEMENT SYSTEM USAID-SRI LANKA

MONITORING AND UTILIZATION REPORT

DIVERSIFIED AGRICULTURE RESEARCH PROJECT

CATEGORY	REF NO	COMMODITY DESCRIPTION	MAKE/MODEL	SERIAL NUMBER	QUANTITY	U/PRICE	T/PRICE	DATE RECD	DATE DIST	LOCATION	GSL/INVENTORY	DATE INSP	EMBLEM	DATE DISPOS
FIELD EQUIPMENT	25	RIDGERS			1	640.63	640.63	08/19/87	/ /	GOVT.FARM BATA-ATA	SB/18/7/18(AEW)	/ /	YES	/ /
FIELD EQUIPMENT	26	ROTOVATORS	DALTON/HOWARD		1	4,162.75	4,162.75	08/19/87	/ /	GOVT.FARM PELVEHERA	SB/18/7/18(AEW)	09/02/91	YES	/ /
FIELD EQUIPMENT	27	ROTOVATORS			1	4,162.75	4,162.75	08/19/87	/ /	GOVT.FARM ALUTHARAMA	SB/18/7/18(AEW)	/ /	YES	/ /
FIELD EQUIPMENT	28	ROTOVATORS			1	4,162.75	4,162.75	08/19/87	/ /	GOVT.FARM BATA-ATA	SB/18/7/18(AEW)	/ /	YES	/ /
FIELD EQUIPMENT	29	ROTOVATORS			1	4,162.75	4,162.75	08/19/87	/ /	GOVT.FARM BATA-ATA	SB/18/7/18(AEW)	/ /	YES	/ /
FIELD EQUIPMENT	30	SPRAYERS KNAPSACK	FLOX 10K		18	45.10	811.80	10/16/86	/ /	GOVT.FARM PELVEHERA	SB/3/32(AEW)	09/02/91	YES	/ /
FIELD EQUIPMENT	31	SPRAYERS POWER	URGENT NRI		42	216.76	9,103.92	10/30/86	/ /	GOVT.FARM PELVEHERA	SB/3/34(AEW)	09/02/91	YES	/ /
FIELD EQUIPMENT	3921	Shop Tool Kit			1			07/18/90	/ /			/ /	YES	/ /
FIELD EQUIPMENT	3922	Shop Tool Kit			1			07/18/90	/ /			/ /	YES	/ /
FIELD EQUIPMENT	3923	Shop Tool Kit			1			07/18/90	/ /			/ /	YES	/ /
FIELD EQUIPMENT	108	TRACTOR (40-50 HP)	FORD/3910	37-6978	1	8,495.00	8,495.00	04/15/88	/ /	GOVT.FARM-PELVEHERA	SB/7/42(AEW)	09/02/91	YES	/ /
FIELD EQUIPMENT	109	TRACTOR (40-50 HP)	FORD/3910	37-7027	1	8,495.00	8,495.00	04/15/88	/ /	DDR-MAHAILLUPALLAMA		/ /	YES	/ /
FIELD EQUIPMENT	110	TRACTOR (40-50 HP)	FORD/3910	37-6980	1	8,495.00	8,495.00	04/15/88	/ /	GOVT.FARM-ALUTHARAMA		/ /	YES	/ /
FIELD EQUIPMENT	111	TRACTOR (40-50 HP)	FORD/3910	37-7026	1	8,495.00	8,495.00	04/15/88	/ /	DDR-MAHAILLUPALLAMA		/ /	YES	/ /
FIELD EQUIPMENT	112	TRACTOR (40-50 HP)	FORD/3910	37-7025	1	8,495.00	8,495.00	04/15/88	/ /	DDR-BANDARAWELA		/ /	YES	/ /
FIELD EQUIPMENT	113	TRACTOR (40-50 HP)	FORD/3910	37-7028	1	8,495.00	8,495.00	04/15/88	/ /	DDR-AGUNKOLAPALLASSA		/ /	YES	/ /
FIELD EQUIPMENT	114	TRACTOR (40-50 HP)	FORD/3910	37-6979	1	8,495.00	8,495.00	04/15/88	/ /	GOVT.FARM-PELVEHERA		09/02/91	YES	/ /
FIELD EQUIPMENT	115	TRACTOR (40-50 HP)	FORD/3910	37-7029	1	8,495.00	8,495.00	04/15/88	/ /	DDR-GIRADURUKOTTE		/ /	YES	/ /
FIELD EQUIPMENT	116	TRACTOR (40-50 HP)	FORD/3910	37-6982	1	8,495.00	8,495.00	04/15/88	/ /	GOVT.FARM-BATA-ATA		/ /	YES	/ /
FIELD EQUIPMENT	117	TRACTOR (40-50 HP)	FORD/3910	37-6983	1	8,495.00	8,495.00	04/15/88	/ /	GOVT.FARM-BATA-ATA		/ /	YES	/ /
FIELD EQUIPMENT	118	TRACTOR (40-50 HP)	FORD/3910	37-7023	1	8,495.00	8,495.00	04/15/88	/ /	DDR-MAKANDURA		/ /	YES	/ /
FIELD EQUIPMENT	119	TRACTOR (40-50 HP)	FORD/3910	37-7024	1	8,495.00	8,495.00	04/15/88	/ /	DDR-KILINOCHCHI		/ /	YES	/ /
FIELD EQUIPMENT	120	TRACTOR (40-50 HP)	FORD/3910	37-6981	1	[illegible]	[illegible]	04/15/88	/ /	GOVT.FARM-ALUTHARAMA		/ /	YES	/ /
FIED EQUIPMENT	32	TRACTOR MOUNTED CULTIVATOR	BIG OX FC-94532		1	598.00	598.00	10/14/89	/ /	GOVT.FARM PELVEHERA	IB/7/85(AEW)	09/02/91	YES	/ /
FIED EQUIPMENT	33	TRACTOR MOUNTED CULTIVATOR	BIG OX FC-94532		1	598.00	598.00	10/14/88	/ /	GOVT.FARM PELVEHERA	IB/7/85(AEW)	09/02/91	YES	/ /
FIED EQUIPMENT	34	TRACTOR MOUNTED CULTIVATOR	BIG OX FC-94532		1	598.00	598.00	10/14/88	/ /	GOVR.FARM PELVEHERA	IB/7/85(AEW)	09/02/91	YES	/ /
FIED EQUIPMENT	35	TRACTOR MOUNTED SPRAYER	HARDEE R-10 FG	8843308	1	3,846.00	3,846.00	10/14/89	/ /	GOVT.FARM PELVEHERA	IB/7/78(AEW)	09/02/91	YES	/ /
						TOTAL	390,008.75							

08/10/94

DIVERSIFIED AGRICULTURE RESEARCH PROJECT

MONITORING AND UTILIZATION REPORT

CATEGORY	REF NO	COMMODITY DESCRIPTION	MAKE/MODEL	SERIAL NUMBER	QUANTITY	U/PRICE	T/PRICE	DATE RECD	DATE DIST	LOCATION	GSL/INVENTORY	DATE INSP	EMBLEM	DATE DI
FIED EQUIPMENT	36	TRACTOR MOUNTED SPRAYER	R-10 FG	8043381	1	3,846.00	3,846.00	10/14/88	/ /	GOVT.FARM PELVEHERA	IB/7/78(AEW)	09/02/91	YES	/
FIED EQUIPMENT	37	TRACTOR MOUNTED SPRAYER	R-10 FG	8043382	1	3,846.00	3,846.00	10/14/88	/ /	GOVT.FARM PELVEHERA	IB/7/73(AEW)	09/02/91	YES	/
FIELD EQUIPMENT	100	TRACTOR TRAILORS			1	1,025.46	1,025.46	11/12/86	/ /	DDR-MAHA ILLUPALAMA	IB/3/35(AEW)	/ /	YES	/
FIELD EQUIPMENT	101	TRACTOR TRAILORS			1	1,025.46	1,025.46	11/12/86	/ /	DDR-MAHA ILLUPALAMA	IB/3/35(AEW)	/ /	YES	/
FIELD EQUIPMENT	102	TRACTOR TRAILORS			1	1,025.46	1,025.46	11/12/86	/ /	DDR-AMBEPUSSA	IB/3/35(AEW)	/ /	YES	/
FIELD EQUIPMENT	103	TRACTOR TRAILORS			1	1,025.46	1,025.46	11/12/86	/ /	DDR-BANDARAWELA	IB/3/35(AEW)	/ /	YES	/
FIELD EQUIPMENT	104	TRACTOR TRAILORS			1	1,025.46	1,025.46	11/12/86	/ /	DDR-MAKANDURA	IB/3/35(AEW)	/ /	YES	/
FIELD EQUIPMENT	105	TRACTOR TRAILORS			1	1,025.46	1,025.46	11/12/86	/ /	DDR-GIRANDURUKOTTE	IB/3/35(AEW)	/ /	YES	/
FIELD EQUIPMENT	106	TRACTOR TRAILORS			1	1,025.46	1,025.46	11/12/86	/ /	DDR-GANNORUWA	IB/3/35(AEW)	/ /	YES	/
FIELD EQUIPMENT	107	TRACTOR TRAILORS			1	1,025.46	1,025.46	11/12/86	/ /	DDR-GANNORUWA	IB/3/35(AEW)	/ /	YES	/
FIELD EQUIPMENT	121	TRACTORS (60-70 HP)	FORD/4610	37-6977	1	9,495.00	9,495.00	04/15/88	/ /	GOVT.FARM-BATA-ATA		/ /	YES	/
FIELD EQUIPMENT	122	TRACTORS (60-70 HP)	FORD/4610	37-6974	1	9,495.00	9,495.00	05/15/88	/ /	GOVT.FARM-PELVEHERA	SE/7/42(AEW)	09/02/91	YES	/
FIELD EQUIPMENT	123	TRACTORS (60-70 HP)	FORD/4610	37-6976	1	9,495.00	9,495.00	04/15/88	/ /	GOVT.FARM-BATA-ATA		/ /	YES	/
FIELD EQUIPMENT	124	TRACTORS (60-70 HP)	FORD/4610	37-6975	1	9,495.00	9,495.00	04/15/88	/ /	GOVT.FARM-ALUTHARAMA		/ /	YES	/
FIELD EQUIPMENT	4280	Tipping Trailors for Tractors			6	72,000.00	432,000.00	/ /	/ /			/ /	YES	/
FIELD EQUIPMENT	3984	Quick Moisture Meter			1			07/10/90	/ /			/ /	YES	/
FIELD EQUIPMENT	3985	Quick Moisture Meter			1			07/10/90	/ /			/ /	YES	/
LAB EQUIPMENT	4206	Adapter			1			/ /	/ /			/ /	YES	/
LAB EQUIPMENT	4135	Air Pump			2	495.00	990.00	/ /	/ /			/ /	YES	/
LAB EQUIPMENT	1142	Amonia Electricle			1	327.25	327.25	/ /	/ /			/ /	YES	/
LAB EQUIPMENT	4143	Amonia Electricle			1	327.25	327.25	/ /	/ /			/ /	YES	/
LAB EQUIPMENT	4144	Amonia Electricle			1	327.25	327.25	/ /	/ /			/ /	YES	/
LAB EQUIPMENT	3983	Audio Tape	Sony		50			/ /	/ /			/ /	YES	/
LAB EQUIPMENT	4168	Auto Transformers			4	135.00	540.00	/ /	/ /			/ /	YES	/
LAB EQUIPMENT	4237	Autoclove portable			5	227.90	1,139.50	/ /	/ /			/ /	YES	/
LAB EQUIPMENT	4263	Automatic Burettes 10 ml			2	275.00	550.00	/ /	/ /			/ /	YES	/
LAB EQUIPMENT	4264	Automatic Burettes 50 ml			6	237.15	1,422.90	/ /	/ /			/ /	YES	/
						TOTAL	881,560.50							

COMMODITY MANAGEMENT SYSTEM USAID-SRI LANKA

MONITORING AND UTILIZATION REPORT

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CATEGORY	REF NO	COMMODITY DESCRIPTION	MAKE/MODEL	SERIAL NUMBER	QUANTITY	U/PRICE	T/PRICE	DATE RECD	DATE DIST	LOCATION	GL/INVENTORY	DATE INSP	EXPLEN	DATE DISP
LAB EQUIPMENT	4279	Automatic dispencer			1	1,140.00	1,140.00	/ /	/ /			/ /	YES	/ /
LAB EQUIPMENT	3953	Bagging Scale	OSAW		1			10/07/91	/ /			/ /	YES	/ /
LAB EQUIPMENT	3954	Bagging Scale	OSAW		1			10/07/91	/ /			/ /	YES	/ /
LAB EQUIPMENT	3955	Bagging Scale	OSAW		1			10/07/91	/ /			/ /	YES	/ /
LAB EQUIPMENT	3956	Bagging Scale	OSAW		1			10/07/91	/ /			/ /	YES	/ /
LAB EQUIPMENT	3957	Bagging Scale	OSAW		1			10/07/91	/ /			/ /	YES	/ /
LAB EQUIPMENT	3958	Bagging Scale	OSAW		1			10/07/91	/ /			/ /	YES	/ /
LAB EQUIPMENT	3959	Bagging Scale	OSAW		1			10/07/91	/ /			/ /	YES	/ /
LAB EQUIPMENT	3960	Bagging Scale	OSAW		1			10/07/91	/ /			/ /	YES	
LAB EQUIPMENT	3961	Bagging Scale	OSAW		1			10/07/91	/ /					
LAB EQUIPMENT	3962	Bagging Scale	OSAW		1			10/07/91	/ /			/ /	YES	/ /
LAB EQUIPMENT	3963	Bagging Scale	OSAW		1			10/07/91	/ /			/ /	YES	/ /
LAB EQUIPMENT	3964	Bagging Scale	OSAW		1			10/07/91	/ /			/ /	YES	/ /
LAB EQUIPMENT	3965	Bagging Scale	OSAW		1			10/07/91	/ /			/ /	YES	/ /
LAB EQUIPMENT	3966	Bagging Scale	OSAW		1			10/07/91	/ /			/ /	YES	/ /
LAB EQUIPMENT	4161	Balance Compression			2	20.00	40.00	/ /	/ /			/ /	YES	/ /
LAB EQUIPMENT	4162	Balance Compression 10 kg			10	20.00	200.00	/ /	/ /			/ /	YES	/ /
LAB EQUIPMENT	4163	Balance Compression 25 kg			10	90.00	900.00	/ /	/ /			/ /	YE	/ /
LAB EQUIPMENT	4160	Balance Electronic			2	800.00	1,600.00	/ /	/ /			/ /	YES	/ /
LAB EQUIPMENT	4159	Balance digital			1	740.00	740.00	/ /	/ /			/ /	YES	/ /
LAB EQUIPMENT	4262	Burettes			5	140.00	700.00	/ /	/ /			/ /	YES	/ /
LAB EQUIPMENT	4225	Calibrator			2			/ /	/ /			/ /	YES	/ /
LAB EQUIPMENT	4239	Camera 35 mm SLR			2	595.00	1,190.00	/ /	/ /			/ /	YES	/ /
LAB EQUIPMENT	4282	Capillary Injector			1			/ /	/ /			/ /	YES	/ /
LAB EQUIPMENT	4284	Capillary Injector			1			/ /	/ /			/ /	YES	/ /
LAB EQUIPMENT	4116	Centrifuge			1			/ /	/ /			/ /	YES	/ /
LAB EQUIPMENT	4117	Centrifuge			1			/ /	/ /			/ /	YES	/ /
						TOTAL	800,090.50							

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LAB EQUIPMENT	4080	Centrifuge 3400 RPM			1	3,510.50	3,510.50	/ /	/ /			/ /	YES	/
LAB EQUIPMENT	4081	Centrifuge Rotor			1	1,371.95	1,371.95	/ /	/ /			/ /	YES	/
LAB EQUIPMENT	4082	Centrifuge Shields			1	430.44	430.44	/ /	/ /			/ /	YES	/
LAB EQUIPMENT	4083	Centrifuge Shields			1	430.44	430.44	/ /	/ /			/ /	YES	/
LAB EQUIPMENT	4084	Centrifuge Tubes			1	27.83	27.83	/ /	/ /			/ /	YES	/
LAB EQUIPMENT	4085	Centrifuge Tubes			1	27.83	27.83	/ /	/ /			/ /	YES	/
LAB EQUIPMENT	4086	Centrifuge Tubes			1	27.83	27.83	/ /	/ /			/ /	YES	/
LAB EQUIPMENT	4087	Centrifuge Tubes			1	27.83	27.83	/ /	/ /			/ /	YES	/
LAB EQUIPMENT	4088	Centrifuge Tubes			1	27.83	27.83	/ /	/ /			/ /	YES	/
LAB EQUIPMENT	4089	Centrifuge Tubes			1	27.83	27.83	/ /	/ /			/ /	YES	/
LAB EQUIPMENT	4090	Centrifuge Tubes			1	27.83	27.83	/ /	/ /			/ /	YES	/
LAB EQUIPMENT	4091	Centrifuge Tubes			1	27.83	27.83	/ /	/ /			/ /	YES	/
LAB EQUIPMENT	4092	Centrifuge Tubes			1	27.83	27.83	/ /	/ /			/ /	YES	/
LAB EQUIPMENT	4093	Centrifuge Tubes			1	27.83	27.83	/ /	/ /			/ /	YES	/
LAB EQUIPMENT	4094	Centrifuge Tubes			1	27.83	27.83	/ /	/ /			/ /	YES	/
LAB EQUIPMENT	4095	Centrifuge Tubes			1	27.83	27.83	/ /	/ /			/ /	YES	/
LAB EQUIPMENT	4096	Centrifuge Tubes			1	27.83	27.83	/ /	/ /			/ /	YES	/
LAB EQUIPMENT	4097	Centrifuge Tubes			1	27.83	27.83	/ /	/ /			/ /	YES	/
LAB EQUIPMENT	4098	Centrifuge Tubes			1	27.83	27.83	/ /	/ /			/ /	YES	/
LAB EQUIPMENT	4099	Centrifuge Tubes			1	27.83	27.83	/ /	/ /			/ /	YES	/
LAB EQUIPMENT	4100	Centrifuge Tubes			1	27.83	27.83	/ /	/ /			/ /	YES	/
LAB EQUIPMENT	4101	Centrifuge Tubes			1	27.83	27.83	/ /	/ /			/ /	YES	/
LAB EQUIPMENT	4102	Centrifuge Tubes			1	27.83	27.83	/ /	/ /			/ /	YES	/
LAB EQUIPMENT	4103	Centrifuge Tubes			1	27.83	27.83	/ /	/ /			/ /	YES	/
LAB EQUIPMENT	4125	Centrifuge refrig.			1	3,126.00	3,126.00	/ /	/ /			/ /	YES	/
LAB EQUIPMENT	4126	Centrifuge refrig.			1	3,126.00	3,126.00	/ /	/ /			/ /	YES	/
LAB EQUIPMENT	4185	Centrifuge Tubes 50 ml			1	77.31	77.31	/ /	/ /			/ /	YES	/
						TOTAL	980,703.82							

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LAB EQUIPMENT	4106	Centrifuge tubes 50 ml			1	77.31	77.31	/ /	/ /			/ /	YES	/
LAB EQUIPMENT	4107	Centrifuge tubes 50 ml			1	77.31	77.31	/ /	/ /			/ /	YES	/
LAB EQUIPMENT	4108	Centrifuge tubes 50 ml			1	77.31	77.31	/ /	/ /			/ /	YES	/
LAB EQUIPMENT	4109	Centrifuge tubes 50 ml			1	77.31	77.31	/ /	/ /			/ /	YES	/
LAB EQUIPMENT	4110	Centrifuge tubes 50 ml			1	77.31	77.31	/ /	/ /			/ /	YES	/
LAB EQUIPMENT	4111	Centrifuge tubes 50 ml			1	[illegible]	77.31	/ /	/ /			/ /	YES	/
LAB EQUIPMENT	4112	Centrifuge tubes 50 ml			1	77.31	77.31	/ /	/ /			/ /	YES	/
LAB EQUIPMENT	4113	Centrifuge tubes 50 ml			1	77.31	77.31	/ /	/ /			/ /	YES	/
LAB EQUIPMENT	4114	Centrifuge tubes 50 ml			1	77.31	77.31	/ /	/ /			/ /	YES	/
LAB EQUIPMENT	4115	Centrifuge tubes 50 ml			1	77.31	77.31	/ /	/ /			/ /	YES	/
LAB EQUIPMENT	4129	Centrifuge tubes 10 ml			400	400.00	160,000.00	/ /	/ /			/ /	YES	/
LAB EQUIPMENT	4128	Centrifuge tubes 15 ml			2000	36.00	72,000.00	/ /	/ /			/ /	YES	/
LAB EQUIPMENT	4130	Centrifuge tubes 15 ml			400	420.00	168,000.00	/ /	/ /			/ /	YES	/
LAB EQUIPMENT	4211	Chart Paper			12			/ /	/ /			/ /	YES	/
LAB EQUIPMENT	4220	Column packings			100			/ /	/ /			/ /	YES	/
LAB EQUIPMENT	4188	Conducting Meter			1	452.00	452.00	/ /	/ /			/ /	YES	/
LAB EQUIPMENT	4123	Cushions for 15 ml			12			/ /	/ /			/ /	YES	/
LAB EQUIPMENT	4124	Cushions for 50 ml			12			/ /	/ /			/ /	YES	/
LAB EQUIPMENT	4178	Decimal Stop Watch			2	81.00	162.00	/ /	/ /			/ /	YES	/
LAB EQUIPMENT	4268	Dessicated Plates dia 190 mm			2			/ /	/ /			/ /	YES	/
LAB EQUIPMENT	4269	Dessicated Plates dia 230 mm			2	33.00	66.00	/ /	/ /			/ /	YES	/
LAB EQUIPMENT	4266	Dessicators 200 mm			2	216.40	432.80	/ /	/ /			/ /	YES	/
LAB EQUIPMENT	4267	Dessicators 250 mm			2	220.00	440.00	/ /	/ /			/ /	YES	/
LAB EQUIPMENT	4230	Diethyl Glycol			50			/ /	/ /			/ /	YES	/
LAB EQUIPMENT	4141	Digital Selective Meter			1	1,171.32	1,171.32	/ /	/ /			/ /	YES	/
LAB EQUIPMENT	4276	Disposable Needles 18.38 mm			100	8.00	8.00	/ /	/ /			/ /	YES	/
LAB EQUIPMENT	4275	Disposal Needles 22.25 mm			100	8.00	8.00	/ /	/ /			/ /	YES	/
						TOTAL	1,304,217.04							

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LAB EQUIPMENT	4274	Disposal Syringes 10ml			100	0.27	27.00	/ /	/ /			/ /	YES	/ /
LAB EQUIPMENT	4273	Disposal Syringes 5 ml			100	0.27	27.00	/ /	/ /			/ /	YES	/ /
LAB EQUIPMENT	4249	Distilation apparatus			1	2,099.00	2,099.00	/ /	/ /			/ /	YES	/ /
LAB EQUIPMENT	4044	Drying Oven			4	1,742.00	6,968.00	05/28/91	/ /			/ /	YES	/ /
LAB EQUIPMENT	4045	Drying Oven			1	1,377.00	1,377.00	05/28/91	/ /			/ /	YES	/ /
LAB EQUIPMENT	4046	Drying Oven			1	1,377.00	1,377.00	05/28/91	/ /			/ /	YES	/ /
LAB EQUIPMENT	4047	Drying Oven			1	1,377.00	1,377.00	05/28/91	/ /			/ /	YES	/ /
LAB EQUIPMENT	4048	Drying Oven			1	1,377.00	1,377.00	05/28/91	/ /			/ /	YES	/ /
LAB EQUIPMENT	4049	Drying Oven			1	1,377.00	1,377.00	05/28/91	/ /			/ /	YES	/ /
LAB EQUIPMENT	4050	Drying Oven			1	1,377.00	1,377.00	05/28/91	/ /			/ /	YES	/ /
LAB EQUIPMENT	4051	Drying Oven			1	1,377.00	1,377.00	05/28/91	/ /			/ /	YES	/ /
LAB EQUIPMENT	4052	Drying Oven			1	1,377.00	1,377.00	05/28/91	/ /			/ /	YES	/ /
LAB EQUIPMENT	4203	Electrometer			1			/ /	/ /			/ /	YES	/ /
LAB EQUIPMENT	4218	Electrometric amplifier			2			/ /	/ /			/ /	YES	/ /
LAB EQUIPMENT	4152	Electronic Taps			1	1,200.00	1,200.00	/ /	/ /			/ /	YES	/ /
LAB EQUIPMENT	4153	Electronic Taps			1	1,200.00	1,200.00	/ /	/ /			/ /	YES	/ /
LAB EQUIPMENT	4154	Electronic Taps			1	1,200.00	1,200.00	/ /	/ /			/ /	YES	/ /
LAB EQUIPMENT	4155	Electronic Taps			1	1,200.00	1,200.00	/ /	/ /			/ /	YES	/ /
LAB EQUIPMENT	4156	Electronic Taps			1	1,200.00	1,200.00	/ /	/ /			/ /	YES	/ /
LAB EQUIPMENT	4157	Electronic Taps			1	1,200.00	1,200.00	/ /	/ /			/ /	YES	/ /
LAB EQUIPMENT	4158	Electronic Taps			1	1,200.00	1,200.00	/ /	/ /			/ /	YES	/ /
LAB EQUIPMENT	4174	Evaporator			1	2,195.00	2,195.00	/ /	/ /			/ /	YES	/ /
LAB EQUIPMENT	4134	Flame Photometer			2	2,880.00	5,760.00	/ /	/ /			/ /	YES	/ /
[illegible]	4227	Flame detector			1			/ /	/ /			/ /	YES	/ /
		Flask 250 ml			12	10.34	124.08	/ /	/ /			/ /	YES	/ /
LAB EQUIPMENT	4060	Flask Carrier 40x250 ml			1	335.00	335.00	/ /	/ /			/ /	YES	/ /
LAB EQUIPMENT	4061	Flask Carrier 40x250 ml			1	335.00	335.00	/ /	/ /			/ /	YES	/ /

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LAB EQUIPMENT	4062	Flask Carrier 40x250 ml			1	335.00	335.00	/ /	/ /			/ /	YES	/ /
LAB EQUIPMENT	4063	Flask Carrier 40x250 ml			1	335.00	335.00	/ /	/ /			/ /	YES	/ /
LAB EQUIPMENT	4064	Flask Carrier 40x250 ml			1	335.00	335.00	/ /	/ /			/ /	YES	/ /
LAB EQUIPMENT	4065	Flask Carrier 40x250 ml			1	335.00	335.00	/ /	/ /			/ /	YES	/ /
LAB EQUIPMENT	4066	Flask Carrier 40x250 ml			1	335.00	335.00	/ /	/ /			/ /	YES	/ /
LAB EQUIPMENT	4067	Flask Carrier 40x250 ml			1	335.00	335.00	/ /	/ /			/ /	YES	/ /
LAB EQUIPMENT	4068	Flask Carrier 40x250 ml			1	335.00	335.00	/ /	/ /			/ /	YES	/ /
LAB EQUIPMENT	4069	Flask Carrier 40x250 ml			1	335.00	335.00	/ /	/ /			/ /	YES	/ /
LAB EQUIPMENT	4240	Freeze dryer			1	3,467.53	3,467.53	/ /	/ /			/ /	YES	/ /
LAB EQUIPMENT	4201	Gas Chromatograph			1	27,534.00	27,534.00	/ /	/ /			/ /	YES	/ /
LAB EQUIPMENT	4206	Gas Regulator			1			/ /	/ /			/ /	YES	/ /
LAB EQUIPMENT	4207	N.2 Cevreator			1			/ /	/ /			/ /	YES	/ /
LAB EQUIPMENT	4232	Hammer Mill			1	2,450.00	2,450.00	/ /	/ /			/ /	YES	/ /
LAB EQUIPMENT	4244	Hand refractometer			3	173.70	521.10	/ /	/ /			/ /	YES	/ /
LAB EQUIPMENT	4245	Hand refractometer wide range			2	810.00	1,620.00	/ /	/ /			/ /	YES	/ /
LAB EQUIPMENT	3971	Heat Sealers			1			10/11/91	/ /			/ /	YES	/ /
LAB EQUIPMENT	3972	Heat Sealers			1			10/11/91	/ /			/ /	YES	/ /
LAB EQUIPMENT	3973	Heat Sealers			1			10/11/91	/ /			/ /	YES	/ /
LAB EQUIPMENT	3974	Heat Sealers			1			10/11/91	/ /			/ /	YES	/ /
LAB EQUIPMENT	3975	Heat Sealers			1			10/11/91	/ /			/ /	YES	/ /
LAB EQUIPMENT	3976	Heat Sealers			1			10/11/91	/ /			/ /	YES	/ /
LAB EQUIPMENT	4054	Heating Mantels			2	85.00	170.00	/ /	/ /			/ /	YES	/ /
LAB EQUIPMENT	4166	Hot Plate			1	420.00	420.00	/ /	/ /			/ /	YES	/ /
LAB EQUIPMENT	4167	Hot Plate			2	86.11	172.22	/ /	/ /			/ /	YES	/ /
LAB EQUIPMENT	4246	Hot Plate			3	373.00	1,119.00	/ /	/ /			/ /	YES	/ /
LAB EQUIPMENT	4241	Hygro Therinograph			2	480.00	960.00	/ /	/ /			/ /	YES	/ /
LAB EQUIPMENT	4175	Incubator			1	2,100.00	2,100.00	/ /	/ /			/ /	YES	/ /
						TOTAL	1,384,736.97							

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LAB EQUIPMENT	4238	Incubator B.O.D.			1	883.00	883.00	/ /	/ /			/ /	YES	/ /
LAB EQUIPMENT	4221	Injectro port septa			10			/ /	/ /			/ /	YES	/ /
LAB EQUIPMENT	4132	Insert Tubes holds			24			/ /	/ /			/ /	YES	/ /
LAB EQUIPMENT	4223	Key for FID detector Nozzle			1			/ /	/ /			/ /	YES	/ /
LAB EQUIPMENT	4234	Lables 1 1/2" x 3 1/2"			10	10.22	102.20	/ /	/ /			/ /	YES	/ /
LAB EQUIPMENT	4233	Lables 1" x 3"			10	6.75	67.50	/ /	/ /			/ /	YES	/ /
LAB EQUIPMENT	4042	Laboratory Mill			1	2,015.00	2,015.00	05/20/91	/ /			/ /	YES	/ /
LAB EQUIPMENT	4240	Lamina Flow Chamber			3	2,584.00	7,752.00	/ /	/ /			/ /	YES	/ /
LAB EQUIPMENT	4181	Lockmatic Tapes			1	21.00	21.00	/ /	/ /			/ /	YES	/ /
LAB EQUIPMENT	39	MEASURING CYLINDERS	03548		20	17.50	350.00	10/14/88	/ /	GOVT FARM.PERADENIYA	16/7/83(AEW) IN STORES.	/ /	YES	/ /
LAB EQUIPMENT	40	METEOROLOGICAL EQUIP			1	1,151.00	1,151.00	10/14/88	/ /	SOIL CONSERVATION PERA	16/7/79,80,81,82(AEW)	/ /	YES	/ /
LAB EQUIPMENT	41	METEOROLOGICAL EQUIP,			1	1,151.00	1,151.00	10/14/88	/ /	SOIL CONSERVATION PERA	16/7/79,80,81,82(AEW)	/ /	YES	/ /
LAB EQUIPMENT	42	METEOROLOGICAL EQUIP			1	1,151.00	1,151.00	10/14/88	/ /	SOIL CONSERVATION PERA	16/7/79,80,81,82(AEW)	/ /	YES	/ /
LAB EQUIPMENT	43	METEOROLOGICAL EQUIP			1	1,151.00	1,151.00	10/14/88	/ /	SOIL CONSERVATION PERA	16/7/79,80,81,82(AEW)	/ /	YES	/ /
LAB EQUIPMENT	4196	Magnetic Stirrerth trap			2	130.00	260.00	/ /	/ /			/ /	YES	/ /
LAB EQUIPMENT	4165	Magnetic Stirrier			2	108.33	216.66	/ /	/ /			/ /	YES	/ /
LAB EQUIPMENT	4247	Magnetic Stirrier			2	165.28	330.56	/ /	/ /			/ /	YES	/ /
LAB EQUIPMENT	4182	Magnifier Double Lens			3	8.00	24.00	/ /	/ /			/ /	YES	/ /
LAB EQUIPMENT	4200	Magnifiers double lines			3	8.00	24.00	/ /	/ /			/ /	YES	/ /
LAB EQUIPMENT	4177	Max-Min Thermometer			3	29.00	[illegible]		/ /			/ /	YES	/ /
LAB EQUIPMENT	4195	Mercury Vapor Moth trap			3	245.00	735.00	/ /	/ /			/ /	YES	/ /
LAB EQUIPMENT	4217	Micro Syringes 1 ml			6			/ /	/ /			/ /	YES	/ /
LAB EQUIPMENT	4261	Microlitre Pipette			2	86.70	173.40	/ /	/ /			/ /	YES	/ /
LAB EQUIPMENT	4250	Mill LO - 15 type			1	2,510.00	2,510.00	/ /	/ /			/ /	YES	/ /
LAB EQUIPMENT	4253	Mill-Q-Water System			1	7,300.00	7,300.00	/ /	/ /			/ /	YES	/ /
LAB EQUIPMENT	4077	Mixer Head for Shaker			1	13.50	13.50	/ /	/ /			/ /	YES	/ /
LAB EQUIPMENT	4078	Mixer Head for Shaker			1	13.50	13.50	/ /	/ /			/ /	YES	/ /
						TOTAL	1,412,110.29							

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DIVERSIFIED AGRICULTURE RESEARCH PROJECT

CATEGORY	REF NO	COMMODITY DESCRIPTION	MAKE/MODEL	SERIAL NUMBER	QUANTITY	U/PRICE	T/PRICE	DATE RECD	DATE DIST	LOCATION	GSL/INVENTORY	DATE INSP	EMBLEM	DATE DISPOS
LAB EQUIPMENT	4079	Mixer Head for Shaker			1			/ /	/ /			/ /	YES	/ /
LAB EQUIPMENT	4228	Module for Power detector			1			/ /	/ /			/ /	YES	/ /
LAB EQUIPMENT	4053	Muffle furnace 1100 large			2	1,800.00	3,600.00	/ /	/ /			/ /	YES	/ /
LAB EQUIPMENT	4258	Nalgene Bottles 125 ml			3	60.00	180.00	/ /	/ /			/ /	YES	/ /
LAB EQUIPMENT	4272	Needles 21x38 mm			100	0.50	50.00	/ /	/ /			/ /	YES	/ /
LAB EQUIPMENT	4271	Needles 25x16 mm			100	0.50	50.00	/ /	/ /			/ /	YES	/ /
LAB EQUIPMENT	4145	Nitrate Electricle			1	382.50	382.50	/ /	/ /			/ /	YES	/ /
LAB EQUIPMENT	4146	Nitrate Electricle			1	382.50	382.50	/ /	/ /			/ /	YES	/ /
LAB EQUIPMENT	4147	Nitrate Electricle			1	382.50	382.50	/ /	/ /			/ /	YES	/ /
LAB EQUIPMENT	4222	No[illegible]			1			/ /	/ /			/ /	YES	/ /
LAB EQUIPMENT	44	OFFICIAL SAMPLE PANS	SEEDBURO		20	6.90	138.00	10/14/88	/ /	GOVT.FARM PELVEHERA	IB/7/84(AEW)	09/02/91	YES	/ /
LAB EQUIPMENT	4148	P.H. Meter			2	410.00	820.00	/ /	/ /			/ /	YES	/ /
LAB EQUIPMENT	45	PLATFORM WEIGHING MACHINE	FAIR BANK	G976046 PE	1	565.00	565.00	10/14/88	/ /	GOVT.FARM PELVEHERA	IB/7/84(AEW)	09/02/91	YES	/ /
LAB EQUIPMENT	46	PLATFORM WEIGHING MACHINE	FAIR BANK	G976048 PE	1	565.00	565.00	10/14/88	/ /	GOVT.FARM PELVEHERA	IB/7/84(AEW)	09/02/91	YES	/ /
LAB EQUIPMENT	47	PLATFORM WEIGHING MACHINE	FAIR BANK	G976047 PE	1	565.00	565.00	10/14/88	/ /	GOVT.FARM PELVEHERA	IB/7/84(AEW)	09/02/91	YES	/ /
LAB EQUIPMENT	48	PLATFORM WEIGHING MACHINE	FAIR BANK	G976045 PE	1	565.00	565.00	10/14/88	/ /	GOVT.FARM PELVEHERA	IB/7/84(AEW)	09/02/91	YES	/ /
LAB EQUIPMENT	4212	Pens (Black)			6			/ /	/ /			/ /	YES	/ /
LAB EQUIPMENT	4260	Pipette Disposeries 10 ml			2	42.50	85.00	/ /	/ /			/ /	YES	/ /
LAB EQUIPMENT	4259	Pipette Disposeries 5 ml			2	42.50	85.00	/ /	/ /			/ /	YES	/ /
LAB EQUIPMENT	4265	Pipetters			5	230.00	1,150.00	/ /	/ /			/ /	YES	/ /
LAB EQUIPMENT	4184	Plainmeter			1	570.00	570.00	/ /	/ /			/ /	YES	/ /
LAB EQUIPMENT	4185	Pocket Microscope			1	18.00	18.00	/ /	/ /			/ /	YES	/ /
LAB EQUIPMENT	4186	Pocket Microscope			1	45.00	45.00	/ /	/ /			/ /	YES	/ /
LAB EQUIPMENT	4187	Pocket Microscope			2	330.00	660.00	/ /	/ /			/ /	YES	/ /
LAB EQUIPMENT	4236	Pocket Microscope			2	20.00	40.00	/ /	/ /			/ /	YES	/ /
LAB EQUIPMENT	4257	Polyethylene Bottles			3	60.00	180.00	/ /	/ /			/ /	YES	/ /
LAB EQUIPMENT	3967	Portable Bag closer			1			03/15/91	/ /			/ /	YES	/ /
						TOTAL	1,423,188.79							

02/10/94

DIVERSIFIED AGRICULTURE RESEARCH PROJECT

MONITORING AND UTILIZATION REPORT

CATEGORY	SEF NO	COMMODITY DESCRIPTION	MAKE/MODEL	SERIAL NUMBER	QUANTITY	U/PRICE	T/PRICE	DATE RECD	DATE DIST	LOCATION	GSL/INVENTORY	DATE INSP	EMBLEM	DATE DISPOS
LAB EQUIPMENT	3968	Portable Bag closer			1			03/15/91	/ /			/ /	YES	/ /
LAB EQUIPMENT	3969	Portable Bag closer			1			03/15/91	/ /			/ /	YES	/ /
LAB EQUIPMENT	3970	Portable Bag closer			1			03/15/91	/ /			/ /	YES	/ /
LAB EQUIPMENT	4215	Power Supply Card			2			/ /	/ /			/ /	YES	/ /
LAB EQUIPMENT	4205	Pressure Regulator			1	27,534.00	27,534.00	/ /	/ /			/ /	YES	/ /
[illegible]	[illegible]	Pressure regulator			4			/	/ /			/ /	YES	/ /
[illegible]	4199	Rain Gauge			1	1,645.00	1,645.00	/ /	/ /			/ /	YES	/ /
LAB EQUIPMENT	4127	Rater fixed Angle			1	305.00	305.00	/ /	/ /			/ /	YES	/ /
LAB EQUIPMENT	3978	Reel to Roll portable Tape/R			1			04/20/91	/ /			/ /	YES	/ /
LAB EQUIPMENT	3979	Reel to Roll portable Tape/R	Sony		1			/ /	/ /			/ /	YES	/ /
LAB EQUIPMENT	3980	Reel to Roll portable Tape/R	Sony		1			/ /	/ /			/ /	YES	/ /
LAB EQUIPMENT	3981	Reel to Roll portable Tape/R	Sony		1			/ /	/ /			/ /	YES	/ /
LAB EQUIPMENT	3982	Reel to Roll portable Tape/R	Sony		1			/ /	/ /			/ /	YES	/ /
LAB EQUIPMENT	4148	Reference Electrode			1	148.75	148.75	/ /	/ /			/ /	YES	/ /
LAB EQUIPMENT	4149	Reference Electrode			1	148.75	148.75	/ /	/ /			/ /	YES	/ /
LAB EQUIPMENT	4150	Reference Electrode			1	148.75	148.75	/ /	/ /			/ /	YES	/ /
LAB EQUIPMENT	4251	Reolaccable Cartrige			4	2,680.00	10,720.00	/ /	/ /			/ /	YES	/ /
LAB EQUIPMENT	4252	Roopard frigerator			1	189.00	189.00	/ /	/ /			/ /	YES	/ /
LAB EQUIPMENT	4118	Rotors			2			/ /	/ /			/ /	YES	/ /
LAB EQUIPMENT	4055	Rotory shaker			1	2,300.00	2,300.00	/ /	/ /			/ /	YES	/ /
LAB EQUIPMENT	4056	Rotory shaker			1	2,300.00	2,300.00	/ /	/ /			/ /	YES	/ /
LAB EQUIPMENT	4057	Rotory shaker			1	2,300.00	2,300.00	/ /	/ /			/ /	YES	/ /
LAB EQUIPMENT	4058	Rotory shaker			1	2,300.00	2,300.00	/ /	/ /			/ /	YES	/ /
LAB EQUIPMENT	4059	Rotory shaker			1	2,300.00	2,300.00	/ /	/ /			/ /	YES	/ /
LAB EQUIPMENT	4256	Rubber Bulb			6	20.00	120.00	/ /	/ /			/ /	YES	/ /
LAB EQUIPMENT	4235	Rubber Tubing 3/8"			100	50.00	5,000.00	/ /	/ /			/ /	YES	/ /
LAB EQUIPMENT	50	SEED TRIERS 16"	800-100		20	61.00	1,220.00	10/14/80 IN STORES	/ /	GOVT FARM,FELVENERA	10/7/82(AEW)	09/02/91	YES	/ /
						TOTAL	1,481,948.04							

DIVERSIFIED AGRICULTURE RESEARCH PROJECT

COMMODITY MANAGEMENT SYSTEM USAID-SRI LANKA

MONITORING AND UTILIZATION REPORT

CATEGORY	REF NO	COMMODITY DESCRIPTION	MAKE/MODEL	SERIAL NUMBER	QUANTITY	U/PRICE	T/PRICE	DATE RECD	DATE DIST	LOCATION	BSL/INVENTORY	DATE INSP	EXPLOM	DATE DISPOS
LAB EQUIPMENT	51	SIEVES FOR TESTING SEED			10	69.00	690.00	10/14/90 IN STORES.	/ /	GOVT FARM,PELVEHERA	10/7/84(NEW)	09/02/91	YES	/ /
LAB EQUIPMENT	4169	Soil Samples			4	65.00	260.00	/ /	/ /			/ /	YES	/ /
LAB EQUIPMENT	4176	Seive			2	39.00	78.00	/ /	/ /			/ /	YES	/ /
LAB EQUIPMENT	4173	Seive 0.5 mm			2	55.00	110.00	/ /	/ /			/ /	YES	/ /
LAB EQUIPMENT	4276	Shaker Vortex			1	175.00	175.00	/ /	/ /			/ /	YES	/ /
LAB EQUIPMENT	4271	Shakers Wrist action			1	1,027.00	1,027.00	/ /	/ /			/ /	YES	/ /
LAB EQUIPMENT	4272	Shakers Wrist action			1	1,027.00	1,027.00	/ /	/ /			/ /	YES	/ /
LAB EQUIPMENT	4120	Shields 50 ml			12			/ /	/ /			/ /	YES	/ /
LAB EQUIPMENT	4119	Shields Stainless Steel			12			/ /	/ /			/ /	YES	/ /
LAB EQUIPMENT	4131	Shields for 15 ml			24	279.00	6,696.00	/ /	/ /			/ /	YES	/ /
LAB EQUIPMENT	4273	Shieve Shaker			1	695.00	695.00	/ /	/ /			/ /	YES	/ /
LAB EQUIPMENT	4274	Shieve Shaker			1	695.00	695.00	/ /	/ /			/ /	YES	/ /
LAB EQUIPMENT	4275	Shieve Shaker			1	695.00	695.00	/ /	/ /			/ /	YES	/ /
LAB EQUIPMENT	4255	Silicagel			5	325.00	1,625.00	/ /	/ /			/ /	YES	/ /
LAB EQUIPMENT	4214	Silican Sauce			1000			/ /	/ /			/ /	YES	/ /
LAB EQUIPMENT	4210	Single Channel flat bed			1			/ /	/ /			/ /	YES	/ /
LAB EQUIPMENT	4170	Soil Auger			4	110.00	440.00	/ /	/ /			/ /	YES	/ /
LAB EQUIPMENT	4163	Soil Auger			2	75.00	150.00	/ /	/ /			/ /	YES	/ /
LAB EQUIPMENT	4241	Soil Crushing/Grinding Mill			1			05/28/91	/ /			/ /	YES	/ /
LAB EQUIPMENT	4151	Spare Electrodes			6	46.00	276.00	/ /	/ /			/ /	YES	/ /
LAB EQUIPMENT	3977	Spare Parts for crioper			1			04/20/91	/ /			/ /	YES	/ /
LAB EQUIPMENT	4137	Spares			2	312.50	625.00	/ /	/ /			/ /	YES	/ /
LAB EQUIPMENT	4139	Spares			4	168.00	672.00	/ /	/ /			/ /	YES	/ /
LAB EQUIPMENT	4130	Spectro Photometer			4	931.00	3,724.00	/ /	/ /			/ /	YES	/ /
LAB EQUIPMENT	4207	Stainless Column			1			/ /	/ /			/ /	YES	/ /
LAB EQUIPMENT	4213	Start up kits			1			/ /	/ /			/ /	YES	/ /
LAB EQUIPMENT	4231	Sterrilizer Automatic			1	19,920.00	19,920.00	/ /	/ /			/ /	YES	/ /
						TOTAL	1,521,508.04							

COMMODITY MANAGEMENT SYSTEM USAID-SRI LANKA

MONITORING AND UTILIZATION REPORT

DIVERSIFIED AGRICULTURE RESEARCH PROJECT

CATEGORY	REF NO	COMMODITY DESCRIPTION	MAKE/MODEL	SERIAL NUMBER	QUANTITY	U/PRICE	T/PRICE	DATE RECD	DATE DIST	LOCATION	GSL/INVENTORY	DATE INSP	EMBLEM	DATE DISPOS
LAB EQUIPMENT	4198	Stir Bar retrevier			2	9.00	18.00	/ /	/ /			/ /	YES	/ /
LAB EQUIPMENT	4197	Stirring Bars			1	-----	-----	.	/ /			/ /	YES	/ /
LAB EQUIPMENT	4164	Stoopers for Cent. tubes			20	7.34	146.80	/ /	/ /			/ /	YES	/ /
LAB EQUIPMENT	4154	Suspended Sp. Balance			2	165.00	330.00	/ /	/ /			/ /	YES	/ /
LAB EQUIPMENT	4215	Syringer 1000ml			100			/ /	/ /			/ /	YES	/ /
LAB EQUIPMENT	4216	Syringers			6	49.00	294.00	/ /	/ /			/ /	YES	/ /
LAB EQUIPMENT	4218	Syringes 20 ml x 1 ml			10	12.00	120.00	/ /	/ /			/ /	YES	/ /
LAB EQUIPMENT	4180	Tally Counter			1	35.02	35.02	/ /	/ /			/ /	YES	/ /
LAB EQUIPMENT	4179	Tally Counter 5 units			1	110.00	110.00	/ /	/ /			/ /	YES	/ /
LAB EQUIPMENT	4226	Temp. Controller			1			/ /	/ /			/ /	YES	/ /
LAB EQUIPMENT	4229	Tenox			50			/ /	/ /			/ /	YES	/ /
LAB EQUIPMENT	4171	Testing Seive			2	330.00	660.00	/ /	/ /			/ /	YES	/ /
LAB EQUIPMENT	4172	Testing Seive			2	55.00	110.00	/ /	/ /			/ /	YES	/ /
LAB EQUIPMENT	4194	Thermometer			1	10.00	10.00	/ /	/ /			/ /	YES	/ /
LAB EQUIPMENT	4278	Thimbles			2			/ /	/ /			/ /	YES	/ /
LAB EQUIPMENT	4072	Thering post for Shaker			10	335.00	3,350.00	/ /	/ /			/ /	YES	/ /
LAB EQUIPMENT	4121	Tubes Polystyrene			400			/ /	/ /			/ /	YES	/ /
LAB EQUIPMENT	4122	Tubes Polystyrene 50 ml			400			/ /	/ /			/ /	YES	/ /
LAB EQUIPMENT	4136	Tubing for photometer			2	94.00	188.00	/ /	/ /			/ /	YES	/ /
LAB EQUIPMENT	4254	Ultrapure cartridge			2	300.00	600.00	/ /	/ /			/ /	YES	/ /
LAB EQUIPMENT	4843	Vacum Blower			2	1,873.00	3,746.00	05/28/91	/ /			/ /	YES	/ /
LAB EQUIPMENT	4191	Voltage Stabilizer 10 amps			2	1,000.00	2,000.00	/ /	/ /			/ /	YES	/ /
LAB EQUIPMENT	4190	Voltage Stabilizer 2 amps			2	370.00	740.00	/ /	/ /			/ /	YES	/ /
LAB EQUIPMENT	4192	Voltage Stabilizer 30 amps			2	2,450.00	4,900.00	/ /	/ /			/ /	YES	/ /
LAB EQUIPMENT	4193	Voltage Stabilizer 30 amps			2	2,450.00	4,900.00	/ /	/ /			/ /	YES	/ /
LAB EQUIPMENT	4189	Voltage Stabilizer 5 amps			2	190.00	380.00	/ /	/ /			/ /	YES	/ /
LAB EQUIPMENT	4242	Water Bath 20-25			1	551.47	551.47	/ /	/ /			/ /	YES	/ /
						TOTAL	1,544,737.33							

COMMODITY MANAGEMENT SYSTEM USAID-SRI LANKA

MONITORING AND UTILIZATION REPORT

DIVERSIFIED AGRICULTURE RESEARCH PROJECT

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LAB EQUIPMENT	4243	Water Bath 50-60			1	990.00	990.00	/ /	/ /			/ /	YES	/ /
LAB EQUIPMENT	4133	Water Skill Automatic			1	1,779.00	1,779.00	/ /	/ /			/ /	YES	/ /
VEHICLES	63	DOUBLE CAB	ISUZU	50-5396	1	8,077.17	8,077.17	09/09/87	/ /	DOS PERADENIYA	SB/3/23(AEW)	/ /	YES	/ /
VEHICLES	64	DOUBLE CAB	ISUZU	50-5397	1	8,077.17	8,077.17	09/09/87	/ /	ADA(S) HIGURAGODDA	SB/3/23(AEW)	/ /	YES	/ /
VEHICLES	65	DOUBLE CAB	ISUZU	50-5398	1	8,077.17	8,077.17	09/09/87	/ /	ADA(S) ALUTAGAMA	SB/3/23(AEW)	/ /	YES	/ /
VEHICLES	66	DOUBLE CAB	ISUZU	50-5399	1	8,077.17	8,077.17	09/09/87	/ /	ADA(S) BATA_ATA	SB/3/23(AEW)	/ /	YES	/ /
VEHICLES	67	DOUBLE CAB	ISUZU	50-5400	1	8,077.17	8,077.17	09/09/87	/ /	DDA&AP PERADENIYA	SB/3/23(AEW)	/ /	YES	/ /
VEHICLES	3887	Double Cab Pickups	Mitsubishi	4D56DN859252	1			05/23/91	/ /			/ /	YES	/ /
VEHICLES	3888	Double cab pickups	Mitsubishi	4D56DN4310	1			08/23/91	/ /			/ /	YES	/ /
VEHICLES	3889	Double cab pickups	Mitsubishi	4D56DN3458	1			08/23/91	/ /			/ /	YES	/ /
VEHICLES	3890	Double cab pickups	Mitsubishi	4D56DN3460	1			08/23/91	/ /			/ /	YES	/ /
VEHICLES	3891	Double cab pickups	Mitsubishi	4D56DN3271	1			08/23/91	/ /			/ /	YES	/ /
VEHICLES	3892	Double cab pickups	Mitsubishi	4D56DN4344	1			08/23/91	/ /			/ /	YES	/ /
VEHICLES	3893	Double cab pickups	Mitsubishi	4D56DN4456	1			08/23/91	/ /			/ /	YES	/ /
VEHICLES	3894	Double cab pickups	Mitsubishi	4D56DN3923	1			08/23/91	/ /			/ /	YES	/ /
VEHICLES	3895	Double cab pickups	Mitsubishi	4D56DN5854	1			08/23/91	/ /			/ /	YES	/ /
VEHICLES	3896	Double cab pickups	Mitsubishi	4D56DN5244	1			08/23/91	/ /			/ /	YES	/ /
VEHICLES	3897	Double cab pickups	Mitsubishi	4D56DN5243	1			08/23/91	/ /			/ /	YES	/ /
VEHICLES	3898	Double cab pickups			1			/ /	/ /			/ /	YES	/ /
	[illegible]	[illegible]	YAMAHA/YB.125E	101-4267	1	[illegible]	[illegible]	[illegible]	/ /	PELVEHARA	SE/7/43(AEW)	09/02/91	YES	/ /
VEHICLES	69	MOTORCYCLES	YAMAHA/YB.125E	101-4268	1	660.50	660.50	08/16/88	/ /	PELVEHARA	SE/7/43(AEW)	09/02/91	YES	/ /
VEHICLES	70	MOTORCYCLES	YAMAHA/YB.125E	101-4163	1	660.50	660.50	08/16/88	/ /	ALUTHARAMA	SE/7/43(AEW)	/ /	YES	/ /
VEHICLES	71	MOTORCYCLES	YAMAHA/YB.125E	101-4264	1	660.50	660.50	08/16/88	/ /	ALUTHARAMA	SE/7/43(AEW)	/ /	YES	/ /
VEHICLES	72	MOTORCYCLES	YAMAHA/YB.125E	101-4165	1	660.50	660.50	08/16/88	/ /	SCHOOL FARM	SE/7/43(AEW)	/ /	YES	/ /
VEHICLES	73	MOTORCYCLES	YAMAHA/YB.125E	101-4266	1	660.50	660.50	08/16/88	/ /	IST1-M.I	SE/7/43(AEW)	/ /	YES	/ /
VEHICLES	74	MOTORCYCLES	YAMAHA/YB.125E	101-4267	1	660.50	660.50	08/16/88	/ /	BATA-ATA	SE/7/43(AEW)	/ /	YES	/ /
VEHICLES	75	MOTORCYCLES	YAMAHA/YB.125E	101-4268	1	660.50	660.50	08/16/88	/ /	BATA-ATA	SE/7/43(AEW)	/ /	YES	/ /
						TOTAL	1,593,176.18							

08/10/94

DIVERSIFIED AGRICULTURE RESEARCH PROJECT

MONITORING AND UTILIZATION REPORT

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VEHICLES	76	MOTORCYCLES	YAMAHA/YB.125E	101-4269	1	660.50	660.50	08/16/88	/ /	DDR	SE/7/43(AEW)	/ /	YES	/
VEHICLES	77	MOTORCYCLES	YAMAHA/YB.125E	102-1171	1	660.50	660.50	08/16/88	/ /	DDAE&P-PERADENIYA	SE/7/43(AEW)	/ /	YES	/
VEHICLES	78	MOTORCYCLES	YAMAHA/YB.125E	102-1182	1	660.50	660.50	08/16/88	/ /	DDAE&P-PERADENIYA	SE/7/43(AEW)	/ /	YES	/
VEHICLES	79	MOTORCYCLES	YAMAHA/YB.125E	102-1183	1	660.50	660.50	08/16/88	/ /	DDAE&P-PERADENIYA	SE/7/43(AEW)	03/05/92	YES	/
VEHICLES	80	MOTORCYCLES	YAMAHA/YB.125E	102-1147	1	660.50	660.50	08/16/88	/ /	ADA(S)-NIKAWERATIYA	SE/7/43(AEW)	/ /	YES	/
VEHICLES	81	MOTORCYCLES	YAMAHA/YB.125E	102-1156	1	660.50	660.50	08/16/88	/ /	ADA(EXT)-BADULLA	SE/7/43(AEW)	/ /	YES	/
VEHICLES	82	MOTORCYCLES	YAMAHA/YB.125E	102-1164	1	660.50	660.50	08/16/88	/ /	AD.R-AMBEPUSSA	SE/7/43(AEW)	/ /	YES	/
VEHICLES	83	MOTORCYCLES	YAMAHA/YB.125E	102-1165	1	660.50	660.50	08/16/88	/ /	DDR PERADENIYA	SE/7/43(AEW)	/ /	YES	/
VEHICLES	84	MOTORCYCLES	YAMAHA/YB.125E	102-1173	1	660.50	660.50	08/16/88	/ /	ISTI-G-KOTTE	SE/7/43(AEW)	/ /	YES	/
VEHICLES	85	MOTORCYCLES	YAMAHA/YB.125E	102-1174	1	660.50	660.50	08/16/88	/ /	ADA(S)-HINGURAGODA	SE/7/43(AEW)	/ /	YES	/
VEHICLES	86	MOTORCYCLES	YAMAHA/YB.125E	102-1181	1	660.50	660.50	08/16/88	/ /	ISTI	SE/7/43(AEW)	/ /	YES	/
VEHICLES	87	MOTORCYCLES	YAMAHA/YB.125E	102-1182	1	660.50	660.50	08/16/88	/ /	DDR-MAKANDURA	SE/7/43(AEW)	/ /	YES	/
VEHICLES	88	MOTORCYCLES	YAMAHA/YB.125E	102-1183	1	660.50	660.50	08/16/88	/ /	ARS-ARALUGAN	SE/7/43(AEW)	/ /	YES	/
VEHICLES	89	MOTORCYCLES	YAMAHA/YB.125E	102-1184	1	660.50	660.50	08/16/88	/ /	MATALE	SE/7/43(AEW)	/ /	YES	/
VEHICLES	135	MOTORCYCLES	HONDA G125-3K	109-472	1	1,124.56	1,124.56	06/07/89	/ /	DD(AE&P),PERADENIYA	IB/8/2/(AEW)	/ /	YES	/
VEHICLES	136	MOTORCYCLES	HONDA G125-3K	109-473	1	1,124.56	1,124.56	06/07/89	/ /	DD(AE&P) PERADENIYA	IB/8/2/(AEW)	/ /	YES	/
VEHICLES	137	MOTORCYCLES	HONDA G125-3K	109-474	1	1,124.56	1,124.56	06/07/89	/ /	DD(AE&P) PERADENIYA	IB/8/2/(AEW)	/ /	YES	/
VEHICLES	138	MOTORCYCLES	HONDA G125-3K	109-476	1	1,124.56	1,124.56	06/07/89	/ /	DD(AE&P) PERADENIYA	IB/8/2/(AEW)	12/03/91	YES	/
VEHICLES	139	MOTORCYCLES	HONDA G125-3K	109-475	1	1,124.56	1,124.56	06/07/89	/ /	DD(EXT.)-PERADENIYA	IB/8/2/(AEW)	/ /	YES	/
VEHICLES	140	MOTORCYCLES	HONDA G125-3K	109-477	1	1,124.56	1,124.56	06/07/89	/ /	DD(EXT.)-PERADENIYA	IB/8/2/(AEW)	/ /	YES	/
VEHICLES	141	MOTORCYCLES	HONDA G125-3K	109-478	1	1,124.56	1,124.56	06/07/89	/ /	ADA(EXT.)-AMPARA	IB/8/2/(AEW)	/ /	YES	/
VEHICLES	3933	Motor Cycle	Yamaha		1			07/16/90	/ /			/ /	YES	/
VEHICLES	3934	Motor Cycle	Yamaha		1			07/16/90	/ /			/ /	YES	/
VEHICLES	3935	Motor Cycle	Yamaha		1			07/16/90	/ /			/ /	YES	/
VEHICLES	3936	Motor Cycle	Yamaha		1			07/16/90	/ /			/ /	YES	/
VEHICLES	3937	Motor Cycle	Yamaha		1			07/16/90	/ /			/ /	YES	/
VEHICLES	3938	Motor Cycle	Yamaha		1			07/16/90	/ /			/ /	YES	/

TOTAL 1,610,295.10

COMMODITY MANAGEMENT SYSTEM USAID-SRI LANKA

MONITORING AND UTILIZATION REPORT

DIVERSIFIED AGRICULTURE RESEARCH PROJECT

CATEGORY	REF NO	COMMODITY DESCRIPTION	MAKE/MODEL	SERIAL NUMBER	QUANTITY	U/PRICE	T/PRICE	DATE RECD	DATE DIST	LOCATION	GSL/INVENTORY	DATE INSP	EMBLEM	DATE DISPOS
VEHICLES	3939	Motor Cycle	Yamaha		1			07/16/90	/ /			/ /	YES	/ /
VEHICLES	3940	Motor Cycle	Yamaha		1			07/16/90	/ /			/ /	YES	/ /
VEHICLES	3941	Motor Cycle	Yamaha		1			07/16/90	/ /			/ /	YES	/ /
VEHICLES	3942	Motor Cycle	Yamaha		1			07/16/90	/ /			/ /	YES	/ /
VEHICLES	3943	Motor Cycle	Yamaha		1			07/16/90	/ /			/ /	YES	/ /
VEHICLES	98	PUSH BYCYLES	ATLAS/APGR		11	31.42	345.62	09/15/86	/ /		IB/3/19/AEW	/ /	YES	/ /
								LOCATIONS- 7 AT GF ALUTHGAMA,3 AT GF BATAATA,AND 1 AT DDAE&P,PERADENIYA.						
VEHICLES	3885	Passenger Cars	Nissan Sunny	CD-17-493610	1			05/24/91	/ /			/ /	YES	/ /
VEHICLES	3886	Passenger Cars	Nissan Sunny	32-8709	1			05/24/91	/ /			/ /	YES	/ /
VEHICLES	91	SEDANS	NISSAN SUNNY/1-7LX	32-3451	1	6,770.43	6,770.43	02/15/87	/ /	DDR-BANDARAWELA	SB/3/11(AEW)	/ /	YES	/ /
VEHICLES	92	SEDANS	NISSAN SUNNY/1-7LX	32-3452	1	6,770.43	6,770.43	02/15/87	/ /	DD(SEEDS),PERADENIYA.	SB/3/11(AEW)	/ /	YES	/ /
VEHICLES	93	SEDANS	NISSAN SUNNY/1-7LX	32-3453	1	6,770.43	6,770.43	02/15/87	/ /	DD (ADMIN),PERADENIYA	SB/3/11(AEW)	12/03/91	YES	/ /
VEHICLES	94	SEDANS	NISSAN SUNNY/1-7LX	32-3454	1	6,770.43	6,770.43	02/15/87	/ /	DDAE&P,PERADENIYA	SB/3/11(AEW)	/ /	YES	/ /
VEHICLES	95	SEDANS	NISSAN SUNNY/1-7LX	32-3455	1	6,770.43	6,770.43	02/15/87	/ /	DDR,PERADENIYA	SB/3/11(AEW)	12/03/91	YES	/ /
VEHICLES	96	STATION WAGONS	NISSAN, BLUE BIRD	32-3035	1	8,144.07	8,144.07	09/02/86	/ /	DDAE&P,PERADENIYA	SB/3/28(AEW)	12/03/91	YES	/ /
VEHICLES	97	STATION WAGONS	NISSAN, BLUE BIRD	32-3036	1	8,144.07	8,144.07	09/02/86	/ /	DDAE&P,PERADENIYA	SB/3/28(AEW)	/ /	YES	/ /
VEHICLES	98	STATION WAGONS	NISSAN.BC.B/LX [illegible]	[illegible]	1	5,986.37	5,986.37	10/28/85	/ /	DDAE&P,PERADENIYA	SB/2/33/(AEW)	/ /	YES	/ /
VEHICLES	99	STATION WAGONS	NISSAN.BC.B/LX WSB 12	32-2030	1	5,986.37	5,986.37	10/28/85	/ /	DDAE&P,PERADENIYA	SB/2/33/(AEW)	12/03/91	YES	/ /
VEHICLES	125	UTILITY	MITSUBISHI/PAJERO	32-3951	1	9,530.18	9,530.18	07/17/87	/ /	DDR-PERADENIYA	SB/3/45(AEW)	12/03/91	YES	/ /
VEHICLES	126	UTILITY	MITSUBISHI/PAJERO	32-3952	1	9,530.18	9,530.18	07/17/87	/ /	DDR-PERADENIYA	SB/3/45(AEW)	/ /	YES	/ /
VEHICLES	127	UTILITY	MITSUBISHI/PAJERO	32-3953	1	9,530.18	9,530.18	07/17/87	/ /	DDR-PERADENIYA	SB/3/45(AEW)	/ /	YES	/ /
VEHICLES	128	UTILITY	MITSUBISHI/PAJERO	32-3955	1	9,530.18	9,530.18	07/17/87	/ /	DD(EDU.&TR.)-PERADENIYA	SB/3/45(AEW)	/ /	YES	/ /
VEHICLES	129	UTILITY	MITSUBISHI/PAJERO	32-3956	1	9,530.18	9,530.18	07/17/87	/ /	DDR-MAHA ILLUPALAMA	SB/3/45(AEW)	/ /	YES	/ /
VEHICLES	130	UTILITY	MITSUBISHI/PAJERO	32-3957	1	9,530.18	9,530.18	07/17/87	/ /	DDR-BATALAGODA	SB/3/45(AEW)		YES	/ /
VEHICLES	131	UTILITY	MITSUBISHI/PAJERO	32-3958	1	9,530.18	9,530.18	07/17/87	/ /	1ST1-GANNORUWA	SB/3/45(AEW)	12/03/91	YES	/ /
VEHICLES	132	UTILITY	MITSUBISHI/PAJERO	32-3959	1	9,530.18	9,530.18	07/17/87	/ /	DDR-PERADENIYA	SB/3/45(AEW)	/ /	YES	/ /
VEHICLES	133	UTILITY	MITSUBISHI/PAJERO	32-3960	1	9,530.18	9,530.18	07/17/87	/ /	DDR-PERADENIYA.	SB/3/45(AEW)	/ /	YES	/ /
VEHICLES	134	UTILITY	MITSUBISHI/PAJERO	32-3961	1	9,530.18	9,530.18	07/17/87	/ /	DD(TE)-PERADENIYA	SB/3/45(AEW)	12/03/91	YES	/ /
						TOTAL	1,768,855.55							

DIVERSIFIED AGRICULTURE RESEARCH PROJECT

COMMODITY MANAGEMENT SYSTEM USAID-SRI LANKA

MONITORING AND UTILIZATION REPORT

CATEGORY	REF NO	COMMODITY DESCRIPTION	MAKE/MODEL	SERIAL NUMBER	QUANTITY	U/PRICE	T/PRICE	DATE RECD	DATE DIST	LOCATION	GSL/INVENTORY	DATE INSP	EMBLEM	DATE DISPOS
VEHICLES	142	UTILITY	MITSUBISHI PAJERO	32-7015	1	8,079.89	8,079.89	01/15/90	/ /	S.E.(CIVIL),PERADENIYA	IB/8/15(AEW)	/ /	YES	/ /
VEHICLES	143	UTILITY	MITSUBISHI PAJERO	32-7017	1	8,079.89	8,079.89	01/15/90	/ /	DD(AE&P),PERADENIYA	IB/G/15(AEW)	/ /	YES	/ /
VEHICLES	144	UTILITY	MITSUBISHI PAJERO	32-7019	1	8,079.89	8,079.89	01/15/90	/ /	DD(AE&P),PERADENIYA	IB/G/15(AEW)	/ /	YES	/ /
VEHICLES	145	UTILITY	MITSUBISHI PAJERO	[illegible]	1	8,079.89	8,079.89	01/15/90	/ /	DDS-PERADENIYA	IB/8/15(AEW)	/ /	YES	/ /
VEHICLES	3930	Utility Double Cab Pickup	Mitsubishi		1			03/30/90	/ /			/ /	YES	/ /
VEHICLES	3931	Utility Double Cab pickup	Mitsubishi		1			03/30/90	/ /			/ /	YES	/ /
VEHICLES	3932	Utility Double Cab pickup	Mitsubishi		1			03/30/90	/ /			/ /	YES	/ /
ELECTRICAL APPL.	38	AIRCONDITIONERS	AMANA 2183X		4	410.00	1,640.00	10/14/88	/ /	DDR,PERADENIYA	IB/7/78/(AEW)	/ /	YES	/ /
ELECTRICAL APPL.	3918	Air Compressor			1			07/10/90	/ /			/ /	YES	/ /
ELECTRICAL APPL.	3919	Air Compressor			1			07/10/90	/ /			/ /	YES	/ /
ELECTRICAL APPL.	3920	Air Compressor			1			07/10/90	/ /			/ /	YES	/ /
ELECTRICAL APPL.	3876	Air Conditioner	Gold Star		1			12/18/90	/ /			/ /	YES	/ /
ELECTRICAL APPL.	3877	Air Conditioner	Gold Star		1			12/18/90	/ /			/ /	YES	/ /
ELECTRICAL APPL.	3878	Air Conditioner	Gold Star		1			12/18/90	/ /			/ /	YES	/ /
ELECTRICAL APPL.	3881	Air Conditioner	Gold Star	9002000034	1			12/27/90	/ /			/ /	YES	/ /
ELECTRICAL APPL.	3882	Air Conditioner	Gold Star	9002000043	1			12/27/90	/ /			/ /	YES	/ /
ELECTRICAL APPL.	3883	Air Conditioner	Mitsubishi	15000032	1			05/20/91	/ /			/ /	YES	/ /
ELECTRICAL APPL.	3884	Air Conditioner	Mitsubishi	15000002	1			05/20/91	/ /			/ /	YES	/ /
ELECTRICAL APPL.	4005	Audio Mixture	AN 025		1			/ /	/ /			/ /	YES	/ /
ELECTRICAL APPL.	4006	Audio Mixture	MX 1100		1			/ /	/ /			/ /	YES	/ /
ELECTRICAL APPL.	177	COOKERS	ELECTROLUX COOKER		1	641.00	641.00	11/01/86	/ /	DARP OFFICE PERADENIYA		12/03/91	YES	/ /
ELECTRICAL APPL.	4007	Colour TV Camera	MX 1100		1			OUT OF SERVICE / /	/ /			/ /	YES	/ /
ELECTRICAL APPL.	53	ELECTRIC KETTLE	METALIX		1	35.23	35.23	09/18/86	/ /	DD(AE&P),PERADENIYA	IB/1/(MA)/2(DD(AE&P)	/ /	YES	/ /
ELECTRICAL APPL.	172	FREEZERS	PHILIPS UPRIGHT FREEZER	-----N/A-------	1	673.00	673.00	10/01/86	/ /	DARP OFFICE PERADENIYA		/ /	YES	/ /
ELECTRICAL APPL.	3999	Micro. for cass. Recorder	Sony		1			/ /	/ /			/ /	YES	/ /
ELECTRICAL APPL.	4000	Micro. for cass. Recorder	AT 812		1			/ /	/ /			/ /	YES	/ /
ELECTRICAL APPL.	4001	Micro. for cass. Recorder	AT 512		1			/ /	/ /			/ /	YES	/ /
						TOTAL	1,203,364.34							

COMMODITY MANAGEMENT SYSTEM USAID-SRI LANKA

MONITORING AND UTILIZATION REPORT

DIVERSIFIED AGRICULTURE RESEARCH PROJECT

CATEGORY	REF NO	COMMODITY DESCRIPTION	MAKE/MODEL	SERIAL NUMBER	QUANTITY	U/PRICE	T/PRICE	DATE RECD	DATE DIST	LOCATION	GSL/INVENTORY	DATE INSP	EMPLOYEE	DATE DISP
ELECTRICAL APPL.	4002	Microp. for cass. Recorder	AT 802		1			/ /				/	YES	/ /
ELECTRICAL APPL.	4011	Port.lighting kit for vidio			1			/ /	/ /			/ /	YES	/ /
ELECTRICAL APPL.	3994	Portable H/D Cassette RecorderSondy			1			/ /	/ /			/ /	YES	/ /
ELECTRICAL APPL.	3995	Portable H/D Cassette RecorderSony			1			/ /	/ /			/ /	ES	/ /
ELECTRICAL APPL.	3996	Portable H/D Cassette RecorderSony			1			/ /	/ /			/ /	YES	/ /
ELECTRICAL APPL.	3997	Portable H/D Cassette RecorderSony			1			/ /	/ /			/ /	YES	/ /
ELECTRICAL APPL.	3998	Portable H/D Cassette RecorderSony			1			/ /	/ /			/ /	YES	/ /
ELECTRICAL APPL.	171	REFREGIRATORS	PHILIPS	---N/A---------	1	800.00	800.00	10/01/86	/ /	DARP OFFICE PERADENIYA		/ /	YES	/ /
ELECTRICAL APPL.	176	REFREGIRATORS	MITSUBISHI REFREGIRATOR		1	833.00	833.00	11/01/86	/ /	DARP OFFICE PERADENIYA		/ /	YES	/ /
ELECTRICAL APPL.	68	REFRIGERATOR	USHA	860716635	1	286.83	286.83	09/18/86	/ /	DARP OFFICE. PERADENIYA	IB/1/(HW)/2(DDAE&P)	12/03/91	YES	/ /
ELECTRICAL APPL.	49	REFRIGERATORS	ABSOCOLD AR101MW20R	880500463	7	428.29	2,998.03	10/ [illegible]	/ /	DDR,PERADENIYA	IB/7/78(AEW)	12/03/91	YES	/ /
										7 UNITS OF REFRIGERATORS 3 UNITS ARE	LOCATED AT DDR,PERADENIYA.			
ELECTRICAL APPL.	4018	Rechargable Bat. with charger			1			/ /	/ /			/ /	YES	/ /
ELECTRICAL APPL.	4003	Speakers for public address	AN 825		1			/ /	/ /			/ /	YES	/ /
ELECTRICAL APPL.	4004	Speakers for public address	AN 825		1			/ /	/ /			/ /	YES	/ /
ELECTRICAL APPL.	4013	Split type Air Conditioners	Mitsubishi		1			05/20/91	/ /			/ /	YES	/ /
ELECTRICAL APPL.	4012	Spliytype Air Conditioners	Mitsubishi		1			05/20/91	/ /			/ /	YES	/ /
ELECTRICAL APPL.	61	TABLE FANS	KDK		2			09/18/86	/ /	DDAE&P PERADENIYA	IB/1/(HW/2(DDAE&P)	/ /	YES	/ /
ELECTRICAL APPL.	4009	Tripled Bogen			1			/ /	/ /			/ /	YES	/ /
ELECTRICAL APPL.	4014	Vacum Cleaner	National		1			10/10/91	/ /			/ /	YES	/ /
ELECTRICAL APPL.	4008	Viewfinder			1			/ /	/ /			/ /	YES	/ /
ELECTRICAL APPL.	173	WASHING MACHINES	HOOVER WASHING MACHINE		1	539.00	539.00	10/01/86	/ /	DARP OFFICE PERADENIYA		12/03/91	YES	/ /
ELECTRICAL APPL.	175	WASHING MACHINES	ELECTROLUX WASHING MACHIN		1	769.00	769.00	11/01/86	/ /	DARP OFFICE PERADENIYA		12/03/91	YES	/ /
								OUT OF SERVICE						
OFFICE FURNITURE	54	FILING CABINETS	ALPHA		5	77.90	389.50	09/18/86	/ /	DDAE&P,PERADENIYA	IB/1/(HW)/2(DDAE&P)	/ /	YES	/ /
HOUSEHOLD FURNITURE	174	DRAWING ROOM SUITE	CANE DRAWING ROOM SUITE		1	493.00	493.00	11/01/86	/ /	DARP OFFICE PERADENIYA		12/03/91	YES	/ /
								ONE ROUND TABLE AND TWO STOOLS						
						GRAND TOTAL	1,810,472.70							