

~~PD-AAQ-199~~  
PD-AAQ-672  
38032

Project Assistance Completion Report

Rice Research Project 383-0040

L. Background

A. Project Purpose

To develop a technological base that permits increases in paddy (rice) land productivity through (a) increased yields of paddy per area, and (b) increase cropping intensity of paddy lands.

B. Project Description

The project was designed to assist the Department of Agriculture to further develop and accelerate the utilization of improved varieties of rice and develop new cropping technology. The project funded technical assistance in production and research technology, training (Ph.D, MS. and short-term), and commodities for equipping production research farms. The research officers trained under this project are assigned to research stations to continue activities supported by the project.

C. Financial Data

1. AID Grant - None
2. AID Loan - \$ 3,800,000 reduced to \$ 3,565,000 by deobligation
3. GSL Contribution - \$ 3,220,000

D. Project Dates

1. PP approved June 8, 1976
2. Project Loan Agreement signed January 25, 1977
3. Final obligation January 25, 1977
4. Project Activity Completion Dates:
  - Technical Assistance - June 30, 1982
  - Training - June 30, 1984
  - Commodities - August 15, 1982

E. Contracts for Services

1. Contractor: International Rice Research Institute  
Contract Amount: \$ 3,125,130 reduced to \$ 2,997,743  
Contract Signed: May 23, 1977  
Contract Amendment No. 1: March 17, 1982  
Contract Completion Date: June 30, 1984 (Training)
2. Contractor: Institute of International Education  
Contract Amount: \$ 530,170  
Contract Signed: October 15, 1980  
Contract Amendment No. 1: December 2, 1980  
Contract Completion Date: June 30, 1984 (Training)

## I. Report

### A. Present Status

Upon reaching the Project Activity Completion Date (PACD) for training on June 30, 1984, all project inputs were completed. Since that time, USAID and GSL officials have made several end of project commodity verification inspections at regional and satellite agricultural research farms where the project-funded equipment is assigned and in use (Annex 1). A post-project survey of the project-funded trainees was made to determine the effectiveness of the training towards meeting the goals of the project. The survey showed that the training received under the project was appropriate and useful. Details are in Annex 2. The GSL has made a final accounting of the project's expenditures (Annex 3). The final voucher from the International Rice Research Institute has been received. There appears to be about \$75,000 worth of disallowances that will need to be resolved. A final voucher from the Institute of International Education (IIE) has been received.

### B. Financial Summary

#### USAID inputs to the Project

The funding and other inputs provided by USAID to the Project can be summarized as follows:

Input	Planned (\$000)	Expenditures (\$000)
Technical Assistance	781	505
Training	881	955
Commodities	1,192	1,113
Contracts*	946	781
	<u>3,800**</u>	<u>3,354</u>

\* The term "contracts" includes all technical assistance, training and procurement contracts, not included in the IRRI contract.

\*\* The original life-of-project loan of \$ 3,800,000 was reduced by deobligation to \$ 3,565,000. Of the \$211,000 remaining unexpended balance, vouchers are being processed against this balance (including the \$75,000 IRRI disallowances). Final reconciliation expected by 3/31/85. Any remaining funds will be formally de-obligated and the project officially closed.

GSL Inputs to the Project

Inputs by the Department of Agriculture are summarized below. Details can be found in Annex 3.

Inputs	Planned (\$000)	Expenditures (\$000)
Personnel*	N/A***	1,648
Buildings & Equipment	N/A	304
Local Operating Expenses**	146	111
		<u>2,063</u>

\* - Personnel line item includes salaries, and travel for about 12,000 man months of Agriculture Department staff.

\*\* - Includes housing and utilities for resident specialists, salaries for local TA support staff, furniture, office equipment, supplies, commodity clearing and in-country transportation costs.

\*\*\* - N/A = Not accountable. These items are covered in project documents by statements that the GSL would support 25% of the project's costs.

C. Project Accomplishments

There have been three evaluations held during the life of project. The first two evaluations, one held after 1 year (August 1978) and the other after two years (May 1979) of implementation noted problems with the consultant team leadership, delays in commodity procurement, delays in initiating long-term training, and lack of progress on the field trials portion of the technical assistance program. The third evaluation, conducted after five years of implementation (December 1982) indicated that many of the earlier problems had slowed implementation of project, but did not jeopardize the attainment of the project's goals and purposes.

The evaluations had a positive impact on the project. Many of the recommendations proposed by the evaluations were implemented, thus the project was able to readjust itself and maintain a track towards accomplishing the programmatic goals and purposes of the project.

The project's accomplishments, in terms of expected outputs, can best be described by using excerpts from the December, 1982 Project Evaluation, conducted after the PACD for technical assistance and commodity procurement had passed.

- (a) Enhanced/functioning rice research (breeding) program.  
The project was designed to expand the capacity of the Department of Agriculture by training staff and providing technical assistance which would adopt the genetic evaluation and utilization approach to rice varietal improvement, coordinate rice and cropping systems research, and decentralize rice improvement research. The technical assistance and training provided by the project were effective. The genetic evaluation and utilization program was strengthened by the the initiation of basic studies on inheritance and transfer of important genotypic characters such as gall midge and brown plant hopper resistance, thrip and "bronzing" tolerance. The project organized a very effective inter-disciplinary rice research working group composed of all principal rice researchers in Sri Lanka. This, along with the cropping systems working group are functioning so well that the working group concept has spread to other crops. These groups have increased the decentralization approach to research, i.e. regionalized research systems and increased the importance of regional agricultural research stations. The basic research will have its greatest pay off in the years to come as materials and techniques emerge from the plant breeding pipeline. In any case, five new rice varieties (BW-267-3, BW-266-7, BW-272-6b, BG-276-5, and AT-16) have been developed and released as a direct result of the project.
- (b) Establishing a rice-based cropping system. This system was developed to establish a "systems" approach (integration of rice and other crops research) to develop production "packages" which would improve the productivity of rice farmers. The program is functioning effectively and has resulted in cropping intensification in scattered areas in Sri Lanka. Benefits of the program are expected to be more fully realized in a few years as the number of "appropriate" systems increases. The activity had a direct benefit on farm production, and also enhanced the effectiveness of the research system by encouraging dialogue among agricultural scientists, economists, extension officers and farmers.
- (c) Resource capability surveys were designed to expand the Land & Water Use Division's capability to determine the climate and geographic characteristics of different areas. The information was then incorporated into new rice and cropping systems technology in order to "tailor" varieties and management practices for local environments. The technical assistance provided to establish these surveys was very satisfactory. The surveys were complete early in the project and were utilized for the cropping systems and breeding programs.
- (d) Expansion of the Field Trials Division (now called Adaptive Research Program within the Research Division) of the Department of Agriculture to increase the local farmers

involvement in rice and cropping systems research, including experimental field trials on farmers fields. As a result of the technical assistance specialist's time being occupied by administrative duties as team leader, and the GSL changing from a centralized to decentralized field trials program, the basic format for the program was developed but not implemented by the project. The format was adopted and amplified by the World Bank-sponsored Agricultural Extension and Adaptive Research Project. This project is being implemented and considered successful. The Rice Research project indirectly served as a catalyst to have this activity incorporated into the decentralization program of the Department of Agriculture.

D. Progress toward Achieving Project Purpose

The Project has had a positive impact upon increasing the yields of paddy per unit area and cropping intensity of paddy lands. Rice production in Sri Lanka rose from an estimated 70% up to 90% of self-sufficiency during the project period. Total production was 80 million bushels in 1977 and 119 million bushels in 1983; average yields per acre were 49 bushels in 1977 and 70 bushels in 1983.

Factors such as weather, prices and availability of inputs make it difficult to quantify increases due solely to the project. Logically, the full impact of the project on Sri Lanka rice production will come as the following developments occur:

- Staff trained during the project are integrated into the research system and achieve their potentials (see training list, Annex 4).
- The decentralized research system implemented during the project begins to pay dividends in the form of varieties and cultural practices better adapted to the regional diversities of the country.
- Additional improved varieties, with additional disease and pest resistance and tolerance to environmental stresses are developed.
- The intensified cropping systems, which were expanded during the project, are more widely adapted.
- Technology transfer to the farmers is improved by development of better linkages between research and extension.

#### E. Recommendations for Final Actions

All necessary GSL documentation is complete and up to date. A final survey of the commodities to verify their location, condition and estimate utilization was conducted by the USAID/SI commodity specialist. The GSL will conduct a financial audit of the project in CY85. The project was audited by IG/A/Karachi in May, 1982. All four of the audit recommendations were satisfied. There is little remaining to be done. The following items will require attention over the next 12 months:

- A final accounting by IRRI and IIE will need to be completed. No problems are anticipated with the IIE contract. IRRI has outstanding disallowances which they have questioned and remain outstanding. USAID, working with the Department of Agriculture, need to settle the issues.
- A decision by USAID will be required to determine whether this project should be a candidate for an impact evaluation.

#### F. Continuing Monitoring Responsibilities and Data Collection

USAID has a continuing interest in rice production research especially the research results from the rice breeding and cropping systems programs as they relate to the new Diversified Agriculture Research Project and USAID's long-term interests in the Accelerated Mahawell Program. Monitoring should be done on an informal basis over the next few years to insure the Department of Agriculture maintains its capacity to undertake and sustain a quality rice production research program.

#### G. Summary of Lessons Learned

The following are lessons learned based on the three evaluations undertaken, and by the Project Officer's experience with the Project:

- (1) Experience has demonstrated that, during the "start-up" phase of a project, management and coordination matters will occupy an individual on a full-time basis. There will be little time available for meaningful technical work, therefore the team leader should not be expected to provide much, if any, technical assistance.
- (2) A project Advisory Committee composed of host government, contractor, and USAID representatives should be organized at the beginning of the project and must meet on a regular basis to discuss operational problems and to review the project's progress. This is necessary to avoid poor communications and improve overall project management.

- (3) Assistance projects should have a grant component to facilitate meeting the logistic needs of contractors.
- (4) Host governments and contractors need to be fully informed and advised on USAID procurement requirements. Source/origin requirements need to be carefully assessed especially in cases where local service is poor or unavailable. USAID should provide training to host country officials who will serve as procurement officers for USAID-funded projects.
- (5) Participant training programs should be developed on realistic time schedules taking into account the lead time necessary for identifying qualified participants, determining field of study, obtaining acceptance by the training institute, and programming realistic course work schedules.
- (6) Selection of the contractor's long-term Chief-of-Party is a critical step to ensuring continuity, confidence and minimizing start-up delays of the project.
- (7) Project funded commodity management, due to the complexity of the USAID and GSL systems, needs continual and close monitoring. USAID must maintain a close relationship with the implementing agency (department) to facilitate matters and to identify and correct any deficiencies which develop in the process.

## memorandum

DATE: December 4, 1984

REPLY TO  
ATTN OF: Prasan Wijesinghe, PDSP

SUBJECT: Rice Research Project No. 383-0040  
Status of Commodities purchased under USAID funds from 1979 - 1984

TO: James W. Bonner, AADO, ARD

During the past 2½ years, USAID has worked very closely with the Department of Agriculture (DOA) to establish an accurate record of commodities purchased under the subject project and compile documentary evidence which identified all of these procurement actions.

The DOA now has in its files a complete list of items purchased under the subject project and a tracking system to locate these items. Their records also include the F.O.B. cost of each item and an appropriate identification system (model/make and serial numbers, etc.).

A complete review of the record system and a series of (site) inspections to verify the tracking system has indicated to me that the DOA now has a fully functional and accurate system for tracking project commodities. All of these commodities are taken into the Department's general inventory system and are reviewed during the Department's annual Audit and Verification Board inspection.

AID:PDSP:PWijesinghe:sdes  
December 4, 1984

Annex 2Evaluation of Training Received and Relevancy of  
Current Assignments of the Participants Trained  
under the Rice Research Project No. 383-0040

by: Sithy Z. Thaha

A survey to identify the type of training received and determine the relevancy of the current assignments of the participants who have returned and are employed in various Rice Research stations was undertaken in December 1984.

In addition to the interviews conducted at the Department of Land and Water Use Development, Peradeniya, the following research stations were visited:

- I Central Rice Breeding Station, Batalagoda
- II Central Agricultural Research Institute, Gannoruwa
- III Agricultural Research Station, Maha Illuppallama

During the course of the survey it was learned that there are now over 20 research stations throughout Sri Lanka, which are undertaking rice production research. The trained participants were distributed in these various stations, making it practically impossible to interview all the participants unless a great amount of time and travel were expended. Further, most of these returnees are field researchers and unless appointments are made it is extremely difficult to contact them. Moreover, due to the troubled situation in the country, Research stations situated in the Northern part of Sri Lanka are not within easy approach.

Method and Results

The survey was conducted using a simple questionnaire developed by USAID (copy attached). The questionnaire was designed to extract the training objectives and coursework undertaken by the participant and make a relative determination of the value of the training received to the job the participant is currently performing. Also of interest was the expected length of time the participant would be in their current position. This was needed to determine the relative "long-term" impact of the training on rice production research in Sri Lanka.

Under the Rice Research Project 158 participants were trained: 33 long-term and 125 short-term. A summary of the survey's results follows:

<u>Total No. of Participants Interviewed</u>	<u>Long-Term</u>	<u>Short-Term</u>
19 (12% of total)	5 (15% of total)	14 (11% of total)

Percentage Relevancy of Training Received  
to Current Employment of the Returnees

	<u>Long-Term</u>	<u>Short-Term</u>
Below 60% relevant	-	1
60%-69% relevant	1	-
70%-79% relevant	3	6
80%-89% relevant	-	3
90%-100% relevant	1	4
	-	-
Total	5	14
	=	==

All 5 candidates who underwent long-term training said that the courses followed were more than 60% relevant to their current employment. Thirteen out of the 14 short-term returnees (93%) said that relevancy of their current assignments were above 70%. Five (26%) of all trainees were of the opinion that their courses were more than 90% relevant.

Conclusion

From this limited survey it is concluded that the training provided under the Rice Research Project No. 383-0040 can be said to be appropriate and that it is being utilized by the participants in support of the Rice Research program in general. Moreover, the current assignment of the returnees to practically all the research stations involved in rice and other field crop research, is a clear indication that the training provided not only benefited the Rice Research program of Sri Lanka but also research activities pertaining to other field crops. This situation will have a positive impact on the Diversified Agricultural Research Project.

AID:ARD:SZThaha:sdes  
January 3, 1985

Rice Research Project (383-0040)Survey for the Evaluation of Training Received and the Relevancy of Current  
Assignments of the Returnees

1. Name of Returnee:	
2. Course followed with USAID assistance:	
3. Duration of Course:	From                      To
4. Place of Work (Dept./Institution):	
5. Job Title:	
6. Nature of Work:	
7. Was training received, relevant to the job you are performing currently? (a) To what degree is it relevant?  (b) Cite examples of how your training has been utilized?	
8. Are you due for transfer?	
9. IF answer to Question 8 is YES: (a) When are you due for transfer? (b) Where will your new assignment be? (c) What is the nature of your new appointment?	
10. How you feel that the training received by you will be useful in implementing the Rice Research Program of Sri Lanka?	

Date of Interview:

Name of Interviewer:

Recurrent Budget\*

<u>Activity</u>	<u>1978</u> <u>(Rs)</u>	<u>1979</u> <u>(Rs)</u>	<u>1980</u> <u>(Rs)</u>	<u>1981</u> <u>(Rs)</u>	<u>1982</u> <u>(Rs)</u>	<u>1983</u> <u>(Rs)</u>
Salary and Wages	2,634,400	3,163,900	3,390,000	3,577,976	3,486,000	6,242,000
Travelling (Local)	144,000	164,000	260,800	378,000	310,000	406,000
Office Supplies )						
Fuel )	693,260	976,000	1,163,600	1,468,200	1,394,000	1,832,000
Other Supplies )						
Other Services**	114,120	136,200	136,200	258,600	228,000	395,200
	<u>3,585,780</u>	<u>4,440,100</u>	<u>4,950,600</u>	<u>5,682,776</u>	<u>5,418,000</u>	<u>8,875,200</u>

\* Research Division Figures. Not confirmed by final audit. 1984 figures unavailable.

\*\* Essential services and communications.

IRRI - Colombo OfficeRecurrent Budget\*

<u>Activity</u>	<u>1978</u> <u>(Rs)</u>	<u>1979</u> <u>(Rs)</u>	<u>1980</u> <u>(Rs)</u>	<u>1981</u> <u>(Rs)</u>	<u>Total</u> <u>(Rs)</u>
Housing & Utilities for Resident Specialists	118,010	61,760	28,660	31,570	240,000
Salaries & Benefits of Local Staff	162,640	93,760	36,940	40,620	333,960
Local Travel	87,660	46,800	21,780	23,760	180,000
Furniture, Office Equipment, Supplies & Maintenance	270,770	64,480	30,010	32,740	398,000
Colombo Office <u>1/</u>	204,000	102,000	60,000	60,000	426,000
Clearing Cost <u>2/</u>	357,200	35,700	17,850	17,850	428,000
	<u>1,200,280</u>	<u>404,500</u>	<u>195,240</u>	<u>206,540</u>	<u>2,006,560</u>

1/ The Colombo Office is essential to handle all travel arrangements, clearances of shipments, logistic support to short-term consultants etc. This cost includes personnel, supplies and operation cost, rent and utilities.

2/ This is Rupee cost for dues, rent in harbour, labor, customs charges, airway bill charges, landing charges, grill room, storage in warehouse, etc. on all imported commodities, materials, supplies, equipment, books and vehicles (shown in Appendix C, line 3).

\* Research Division Figures. Not confirmed by final audit.

Capital Costs\*

<u>Activity</u>	<u>1978</u> <u>(Rs)</u>	<u>1979</u> <u>(Rs)</u>	<u>1980</u> <u>(Rs)</u>	<u>1981</u> <u>(Rs)</u>	<u>1982</u> <u>(Rs)</u>	<u>1983</u> <u>(Rs)</u>
Buildings: Offices, stores, etc.	339,500	757,000	-	973,000	410,000	-
Equipment: (Field and laboratory)	24,890	50,450		305,700	133,000	-
Land Development	231,000	-	613,000	915,000	89,000	-
Machinery: (tractors, sprayers, etc.)	-	-	336,000	554,350	70,100	369,500
	<u>595,390</u>	<u>807,450</u>	<u>949,000</u>	<u>2,748,050</u>	<u>602,100</u>	<u>369,500</u>
	=====	=====	=====	=====	=====	=====

• Research Division Figures. Not confirmed by audit. 1984 figures unavailable

Summary of Training

1. Long Term

Ph.D. (in U.S.)

Mr. Mervyn Sikurajapathy, Research Officer  
Mr. A.S. Vivekanandan, Research Officer

M.Sc (UPLB)

Ms. Ranjani Peiris, Experimental Officer  
Mr. N. Senanayake, Research Officer  
Mr. S. Ponnathurai, Research Officer  
Mr. G.R. Jayaweera, Experimental Officer  
Mr. P.A. Samarathunga, Agriculture Officer  
Mr. T.J.A.P. Gunawardhana, Agriculture Officer  
Mr. L. Nugaliyadde, Experimental Officer

M.Sc (in U.S.)

Mr. V. Rasaiah, Research Officer  
Mr. A.D. Somapala, Research Officer  
Mr. D.L. Wickremasinghe, Research Officer  
Mr. B.L. Fernando, Research Officer  
Mr. D.S. de Z. Abesiriwardhana, Research Officer  
Mr. K.D.S.M. Joseph, Research Officer  
Mr. S. Logendran, Research Officer  
Ms. K.K.S. Fernando, Research Officer  
Ms. S. Sivasubramaniam, Research Officer  
Ms. M.K. Gunatillake, Research Officer  
Ms. S. Abeythunga, Research Officer  
Ms. S. Logendran, Research Officer  
Ms. G. Jeyendra, Research Officer

2. Short-term

Cropping Systems (6 months duration)

Mr. J. Amarasena, Research Assistant  
Mr. N. Kanaganayakam, Experimental Officer  
Mr. K.D. Walter, Research Assistant  
Mr. M.S. Perera, Research Assistant  
Mr. A. Selvarajah, Experimental Officer  
Mr. D.M. Gunasekera, Agriculture Instructor  
Ms. G.R. Araserathnam, Experimental Officer  
Mr. S. Rajakulendran, Agriculture Instructor  
Mr. M. Selvarajah, Agriculture Instructor  
Mr. S.N. Jayawardhana, Experimental Officer  
Mr. K.A. Methananda, Research Officer  
Mr. V. Gunasingham, Experimental Officer

Mr. N. Karalliyadde, Agriculture Instructor  
Mr. C. Nillegoda, Agriculture Instructor  
Mr. W.G. Dayarathne, Agriculture Instructor  
Mr. M. Namasivayam, Agriculture Director  
Mr. P.G. Thurairathnam, Agriculture Instructor  
Mr. G.D. Gamini, Research Assistant  
Mr. S. Sinnathurai, Agriculture Instructor  
Mr. A.W. Dharmasena, Agriculture Instructor  
Mr. A.M.H.P. Piyasena, Agriculture Instructor  
Mr. N. Sivayogarajah, Agriculture Instructor

GEU (4 months duration)

Ms. G. Saparamadu, Agriculture Instructor  
Mr. D.J. Wickremasinghe, Research Officer  
Mr. S. Ponnathurai, Research Officer  
Mr. R.M.T. Rajapakse, Experimental Officer  
Mr. P. Hemadasa, Research Assistant  
Mr. G. Jeyendran, Research Officer  
Mr. K.D.S.M. Joseph, Research Officer  
Ms. S. Sri Lingam, Research Officer  
Ms. G. Rahael, Research Officer  
Mr. C.D. Poornampillai, Research Officer  
Ms. K. Jayaweera, Experimental Officer  
Mr. A.D.S. de Soya, Experimental Officer  
Mr. N. Dissanayake, Research Officer  
Ms. B.M. Dissanayake, Agriculture Instructor  
Ms. C. Rodrigo, Experimental Officer  
Mr. Mervyn Kumara, Research Assistant  
Mr. L.B. Nimalarathne, Research Assistant  
Mr. U. Chandrasiri, Research Assistant  
Mr. S.W. Abeysekara, Research Officer  
Mr. E.D. Pathinayake, Research Officer  
Mr. M. Padmasiri, Research Assistant  
Mr. W.M.A.D.B. Wickremasinghe, Research Officer  
Mr. S. Arumugan, Experimental Officer  
Mr. H.M.P. Jayasundara, Experimental Officer  
Mr. R. Sumanadasa, Research Assistant  
Mr. D.P.P. Jayakody, Agriculture Instructor

Farm Management (4 months duration)

Mr. P. Dissanayake, Agriculture Instructor  
Mr. T.B. Herath, Agriculture Instructor  
Mr. K.K. Jayasekara, Agriculture Instructor  
Mr. M.C. Wijewardhana, Agriculture Instructor  
Mr. S.P. Dharmawardhana, Agriculture Instructor

Irean Special Training (2 months duration)

Mr. N. Weralugolla, Economic Assistant

Food Technology and Cereal Chemistry (9 months duration)

Ms. C. Breckenridge, Research Officer

Special Training for Research Officers (1 month duration)

Mr. G. Jayawardhana, Research Officer

Mr. P. Yogarathnam, Research Officer

Mr. I. Balasooriya, Research Officer

Mr. G.A. Gunatillake, Research Officer

Dr. P. Ganeshan, Research Officer

Water Management (5 weeks duration)

Mr. H. Gamage, Agriculture Officer

Mr. P. Dayananda, Research Officer

Mr. A.A. Dharmasena, Agriculture Instructor

Mr. C. Thirunadarajah, Agriculture Instructor

Mr. W.D.L. Stanley, Research Officer

Mr. M. Sivapatham, Agriculture Instructor

Mr. H.A. Boyegoda, Agriculture Officer

Rice Agro-Econ Network (3 month duration)

Mr. K.D. Abeysinghe Banda, Economic Assistant

Mr. A.M. Jayatillake, Economic Assistant

Mr. P.B.R. Kumbaregama, Economic Assistant

Mr. H.D. Dissanayake, Economic Assistant

Mr. G.D. Siripala, Economic Assistant

Rice Production (4 months duration)

Mr. A. Wickremasinghe, Research Assistant

Mr. K.A.J.H. Fernando, Experimental Officer

Mr. S.K. Senevirathne, Agriculture Instructor

Mr. J. Dharmasena, Experimental Officer

Mr. H. Kumarasinghe, Agriculture Instructor

Mr. K.P. Alfred, Agriculture Instructor

Mr. S. Kottearachchi, Research Assistant

Mr. W.J. Walgampaya, Agriculture Instructor

Mr. K.B.A. Attanayake, Agriculture Instructor

Mr. A.M. Senevirathe, Agriculture Instructor

Mr. W.B. Yatiwella, Agriculture Instructor

Mr. W.M. Ubesena, Agriculture Instructor

Insfrer (4 months duration)

Ms. N. Gunapala, Experimental Officer

Ms. S. Marikkar, Experimental Officer

Mr. C. Wijesundara, Research Officer

Mr. A.M. Senevirathne, Research Assistant

Mr. H.M.S. Wijerathne, Experimental Officer

Mr. W.M.J. Bandara, Agriculture Instructor

Zinc Deficiency (6 months duration)

Mr. B.M. Nizar, Research Assistant

Irrigation, Water Management and Draught Screening

Mr. G.B. Keerthirathne, Research Officer

Use of Field Trials (1 month duration)

Mr. S. Sri Kantah, Agriculture Officer  
Mr. S.H. Charles, Agriculture Officer

Special Study Tour (1 month duration)

Dr. S.P.R. Weerasinghe, Research Officer  
Mr. T. Sivalingam, Research Officer

Field Trails (3 weeks duration)

Mr. A.S. Vivekanandan, Research Officer

Aerial Survey in the Netherlands (1 year duration)

Mr. T.B. Samarakoon, Soil Surveyor  
Mr. P.S. Wijesooriya, Soil Surveyor

Irrigation and Water Management (6 weeks duration)

Mr. N. Heen Banda, Agriculture Instructor  
Mr. S. Jeyarajan, Agriculture Instructor

Varaital Testing (1 month duration)

Mr. T. Thavanesh, Experimental Officer

Grain Quality Testing (4 months duration)

Mr. K.D. Ariyaratne, Research Assistant

Rice Production (4 months duration)

Mr. P.D. Gunatillake, Agriculture Instructor  
Mr. W.B. Rambukwella, Agriculture Instructor  
Mr. A. Dharmasena, Agriculture Instructor  
Mr. W.A. Prangadasa, Agriculture Instructor  
Mr. N.P.A. Sunil Chandra, Agriculture Instructor  
Mr. S. Balendra, Research Assistant

Integrated Pest Management (4 months duration)

Mr. P.M. Wijerathna Banda, Research Officer  
Ms. B.M. Tennakoon, Agriculture Instructor

Upland Rice

Mr. G.A. Jinadasa, Experimental Officer  
Mr. R.H. Ranaweera Banda, Experimental Officer

Special Training

Mr. S. Sundaramoorthy, Agriculture Officer

Post Graduate Training under IRRI (in U.S.)

Mr. I. Balasooriya, Research Officer  
Mr. R.M. Kularathne, Research Officer  
Mr. C. Kudagamage, Research Officer

Post Graduate Training under IRRI (at PGIA Sri Lanka)

Mr. S. Samarakoon, Agriculture Officer  
Mr. Michael de Silva, Research Officer  
Mr. R.M.T. Rajapakse, Experimental Officer  
Mr. M.S. Ravel, Experimental (later withdrew)  
Mr. E.M. Balasubramaniam, Experimental Officer  
Ms. R. Sri Lingam, Research Officer  
Ms. K. Jayaweera, Experimental Officer

Short-term under IEE (U.S.)

Mr. C. Poornampillai  
Mr. I. Wahundeniya  
Mr. C. Wijesundera  
Mr. S. Wijesundera  
Mr. V. Premjayanth  
Mr. H.D. Jayawickrema  
Mr. H.B.T. Wijeratne  
Mr. Lal Senanayake, Research Officer