

THE WORLD BANK INTERNATIONAL FINANCE CORPORATION
OFFICE MEMORANDUM

PD-AAS-194

42307

(ISAID)

DATE: March 7, 1985

TO: Mr. S. J. Baker, Acting Chief, ASPAA

FROM: Dirk Leeuwrik and H. van Voorthuizen, ASPAA

SUBJECT: SRI LANKA - Mahaweli Ganga Development Project II - Cr. 701-CE
Back-to-Office and Full Supervision Report

1. In accordance with the Terms of Reference dated December 17, 1984, we visited Sri Lanka in January 1985 for the final review of implementation of the Mahaweli Ganga Development Project II (Cr. No. 701-CE). Representatives of two of the four co-financing countries - The Netherlands and The United Kingdom - participated in the review and representatives of the two others - Canada and the United States - attended the wrap-up meeting. Senior staff of the Mahaweli Economic Agency and the Mahaweli Engineering and Construction Agency accompanied the mission during the field review.
2. The Full Supervision Report, comprising the Supervision Summary and Annexes 1 through 4, is attached. The mission's findings and recommendations are summarized in the Aide-Memoire of January 1985 (Annex 2) which was left with GOSL at the conclusion of the mission. The credit will close on June 30, 1985. A draft PCR has been prepared and submitted; its finalization will probably require a follow-up visit to Sri Lanka in conjunction with other operational work). The project is expected to exceed the agricultural targets. A major concern at this stage is our inability to reimburse expenditures under small-scale contracts because of incomplete audits of accounts and documents supporting Statements of Expenditures.

Attachment

Distribution

Messrs. Hopper, Shibusawa, West (ASNVP);
Lerdau, Haynes, Nowicki, Saeed (2)(ASPDR);
Cheetham (ASADR); Tsantis (2)(ASADC);
Rajagopalan (2)(PPD), Schuh (AGR), Hittmair (CTRVP);
Watanabe (OED), da Silva (LEG);
Ms. Gunnarsdottir (LOAAS);
Resident Mission, Colombo (3)
SAIC

DLeeuwrik:act

THE WORLD BANK
IBRD AND IDA - SUPERVISION SUMMARY

This summary is the initial summary
 part of a mission report
 an annual update

For detailed instructions on completion of this form, please see Attachment A to the Annex of OMS 3.50.
THIS FORM IS A STOCKROOM ITEM.

Regional Office: S. Asia	Project Name: Mahaweli Ganga Development II	Project Code: S-SRI-AI-04	Loan <input type="checkbox"/> Credit <input checked="" type="checkbox"/> No.:	L/C Amount (\$xx.xm): 19.0
Country: Sri Lanka	Borrower/Beneficiary: Republic of Sri Lanka	Board Date: 4/21/77	Signing Date: 6/27/77	Effective Date: 12/29/77
Projects Dept./Div. Name: S. Asia Proj./Irrig. I	Org. Code no.: 186/10	Projects Officer: D. Leeuwrik	Loan Officer: F. Ahmed	

SECTION 1: SUMMARY PROJECT DESCRIPTION Completing Kalawewa RB Main Canal (10 mi) and improving four major tanks along the canal; construction of irrigation and drainage systems and land clearing and preparation on 40,300 ac; improving 50 mi of existing and constructing 25 mi of new roads providing storage, marketing and processing facilities; providing schools, medical and other community development facilities; constructing wells and roads in settlements; settling 15,300 families; providing vehicles and equipment and consultants' services.

SECTION 2: PERFORMANCE RATING

STATUS: 1 - Problem-free or Minor Problems; 2 - Moderate Problems; 3 - Major Problems

TREND: 1 - Improving; 2 - Stationary; 3 - Deteriorating

TYPES OF PROBLEMS: F - Financial; M - Managerial; T - Technical; P - Political; O - Other (Explain in Section 6.)
If more than one type of problem, enter most critical factor first.

IMPLEMENTATION STATUS: 1 - Problem-free or Minor Problems; 2 - Moderate Problems; 3 - Major Problems

	This Summary	Last Summary
Disbursements	2	2
Estimated Cost	2	2
Anticipated Completion	M	M
Compliance with Loan Conditions	3	2
Project Finances	1	1
Management Performance	1	2
Procurement Progress	2	1
Performance of Consultants	2	2
Reporting	1	1
DEVELOPMENT IMPACT: 1 - Problem-free or Minor Problems; 2 - Moderate Problems; 3 - Major Problems	1	1
Expected Benefits	1	1
Rate of Return	1	1
Institution-Building	1	1

SECTION 3: PROJECT DATA

Estimated/Actual	Project Completion (Mo./Yr.)	Loan/Credit Closing (Mo./Day/Yr.)	Total of which:			Cumulative Disbursements through most recent Quarter ended (12/31/84) (\$xx.xm)
			Total Project Cost (\$xx.xm)	Foreign Currency (\$xx.xm)	Local Currency (\$xx.xm)	
Appraisal Est.	6/82	6/30/83	80.0	32.6	47.4	19.0 (Est)
Last Summary (1/13/84)	6/84	6/30/84	56.8	27.8	29.0	
Current	6/85	6/30/85	58.8	28.8	30.0	9.7 (Actual)

SECTION 4: MISSION SCHEDULE

	No. of Staff on Mission	No. of Days in Country	Return to HQ (Mo./Day/Yr.)	Final Report Date (Mo./Day/Yr.)
Latest/Present Mission	2	8	2/13/85	3/6/85 FS
Previous Mission	3	7	12/23/83	1/13/84 FS

Next Mission Departure (Mo./Yr.) See Section 5. Recommended interval between missions (Months) _____

End of period covered by latest progress report (Mo./Day/Yr.) 9/30/84

* Type of Report: FS = Full Supervision; CS = Combined Full/B-T-O; C = Completion; A = Appraisal; O = Other (explain below)

Names of Mission Members	Mission Members' Specializations
D. M. Leeuwrik	Sr. Agriculturist
H. van Voorthuizen	Sr. Agric. Economist
R. D. Bell	Agric. Eng. Advisor, UK (ODA)
J. Doorenbos	Dir. Director, Netherlands Ministry of Ag. & Fisheries

Number of members on both present and previous mission: None One Two or More

SRI LANKA

MAHAWELI GANGA DEVELOPMENT PROJECT II

Credit 701-CE

List of Annexes

- ANNEX 1: Letter to Borrower
- ANNEX 2: Aide Memoire
- ANNEX 3: Schedule of Accumulated Disbursements
- ANNEX 4: Compliance with Major Covenants

The World Bank

INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT
INTERNATIONAL DEVELOPMENT ASSOCIATION

1818 H Street, N.W.
Washington, D.C. 20433
USA

ANNEX 1
(202) 477-1234
Cable Address INTBAFRAD
Cable Address INDEVAS

March 7 1985

Mr. K.H.S. Gunatilaka
Director General
Mahaweli Authority of Sri Lanka
Colombo
Sri Lanka

Dear Mr. Gunatilaka:

We thank you and the staff of MEA and MECA for the courtesies, cooperation and assistance extended to the January 1985 mission reviewing the implementation progress of the Mahaweli Ganga Development II project (Cr. No. 701-CE). The mission has reported its findings and we endorse the views and recommendations presented in the Aide Memoire left by the mission. Based on past experience, we know that the concerned staff will be taking the necessary follow-up actions to solve the issues raised in the Aide-Memoire and to further improve the implementation of the project.

The project is now nearing completion and, as stated in the Aide-Memoire, the H area has already become an important and productive agricultural region in Sri Lanka. However, now that the necessary infrastructure is essentially in place, a great deal of concentrated attention will need to be given to the further development of settler communities to ensure that the improvement in incomes and living standards will be sustained and be shared equitably by all. The project is moving from the "construction" phase into the "operation and maintenance" phase with all the associated changes. We are pleased to note some of the actions that have already been initiated or are contemplated in anticipation of these changes, and we particularly voice our support for the proposed intensive operational support program in two representative areas, each served by a distributary channel. Using a broad socio-economic approach, this program would systematically identify production and other constraints, apply existing knowledge to overcome such constraints, and also test new approaches. The experience gained would eventually be extended to the whole of the H area during a follow-up phase. Such a program would be extremely useful and timely at this stage and we believe that it would be very suitable for bilateral financial and technical support.

One serious concern which remains is the project's continued inability to provide IDA with satisfactory audit reports. We would be grateful if you could give this issue your personal attention because, unless resolved, IDA will not be able to reimburse a sizable amount of expenditures incurred under small-scale works contracts.

In conclusion, we are pleased to have been associated with you in this important project and we wish you success in its management and operation. Since the credit closes on June 30, 1985 no further review missions are envisioned. However, the finalization of the Project Completion Report will probably require one more visit later this year, which we would make in conjunction with other operational work.

With warm regards,

Yours sincerely,

Stanley J. Baker
Acting Division Chief
Irrigation I Division
South Asia Projects Department

SRI LANKAMAHAWELI GANGA DEVELOPMENT PROJECT IICREDIT 701-CEREVIEW MISSION - AIDE MEMOIRE(January 1985)I. Introduction

1. A joint review mission, comprising Messrs. R. Bell, Agricultural Engineering Advisor, ODA, (U.K.), J. Doorenbos, Advisor to the Dutch Ministry for Development Cooperation, H. van Voorthuizen, Senior Agricultural Economist, IDA, and D. Leeuwrik, Senior Agriculturist, IDA (Mission Leader), visited Sri Lanka during January 7 - 14, 1985, to review progress of the Mahaweli Ganga Development II project. Messrs. Gil Haycock, Chief Engineering Officer (Mahaweli), USAID, S. Bruinsma, Second Secretary, Netherlands Embassy, and S. Baker, Deputy Division Chief (Irrigation I), IDA, participated in opening and concluding meetings with Mahaweli staff, chaired by Mr. K.H.S. Gunatilaka, Director General, MASL. Senior MEA and MECA staff accompanied the mission during a field review. This Aide-Memoire summarizes the mission's main findings and recommendations which are subject to confirmation by management. The mission would like to thank the many people who helped them in the review. In particular, the mission expresses its appreciation to Mr. C. Amarasinghe, General Manager, MEA, for his assistance and for arranging the field visits.

II. General Project Implementation Progress

2. Construction of infrastructure and settlement are now almost completed. Approximately 100 ha of on-farm development is still in progress and a small number of resettlers and encroachers are expected to be settled before June 1985. The project was given a second one-year extension till June 30, 1985 to enable completion of the construction of irrigation works, roads and buildings and also on-farm development and settlement. This was interrupted because of unusually heavy rains and floods during early 1984. Now that the major construction phase has been completed, major emphasis is being given to the establishment of an adequate and efficient system of operation and maintenance (O&M) for sustained, high level agricultural production, to increased participation by the settlers and to community development. The H area has already become an important and productive agricultural region in Sri Lanka, although crop yields and production in Maha 1984 were somewhat reduced from previous high levels because of the prolonged heavy rains. With further refinement of the system and on-farm water management, and greater attention now being given to socio-economic development along the lines discussed, the project is expected to fulfill all its major objectives to a greater extent. As indicated by the previous review mission,

agricultural benefits are likely to exceed the appraisal report projections. However, further progress in the development of the settler community, including women groups, should be handled with care and sensitivity to avoid inequities and to ensure that the projected improvement in incomes and quality of life is realized by all.

III. Infrastructure and On-Farm Development

3. Only a small amount of work, mainly roads and building construction, remains to be completed and the mission was assured that this will be substantially achieved by June 1985. It is possible however, that canal lining and construction of wells may not reach the targets. About 80% of the planned number of wells have been completed to date. Headworks construction is virtually complete, but the mission noted with some concern that there are still large numbers of young trees on the Kalaweza main bund. The mission again recommends that trees which are not yet deep rooted should be removed from the bund. The Parshal Flume of Kalaweza RB has been substantially rebuilt in 1984 and has not yet been fully calibrated. The mission observed serious turbulent flow likely to interfere with accurate flow measurement. Modifications to smooth flow are required. The lining of main and branch channels planned for 1984 was disrupted by excessive rains and, as a result, approximately 40% of the work scheduled for 1984 remain to be completed. The mission believes that additional sections of branch, "D" and field channels may require lining as water management is improved. The installation and gauging of structures in "D" and field channels has been substantially completed. Those inspected were of satisfactory quality, and problems identified by the mission in 1983 had been substantially rectified. The balance of on-farm Development work of land clearing, bunding and construction of farm channels in Block 419 is nearing completion.

IV. Machinery and Workshops

4. Most of the construction equipment has now been transferred to other areas since there is need only for a relatively small fleet of plant, trucks and tractors with trailers for O&M work, and vehicles for project staff. Workshop facilities at Thambettegama are more than adequate for System II and could provide overhaul facilities for plant from other areas if necessary. The mission recommends that the machinery requirements for on-going O&M for System II be carefully reviewed now that the main construction phase is finished.

V. Settlement

5. Settlement is now scheduled to be completed by March 31, 1985 with only about 150 settlers to be allotted land, mainly in Block 419. By that time that total number of settlers in the new II areas is expected to reach about 23,600. The mission was impressed by the high level of activity in block 419 where the new settlers had planted paddy within days after the cleared plots had been handed over to them. The majority of the settlers were resettled from neighbouring areas. The mission understands that the allocation of homestead plots is running somewhat behind the allocation of the 2.5 acre crop plots. Efforts should be made to avoid such delays since it may cause hardship for the new settlers.

6. There are indications that an undetermined, but possibly substantial, proportion of the settlers are experiencing difficulties in achieving the projected standards of living. This is evidenced by the relatively large number of credit defaulters (para. 13) and also by the reported leasing out of settlement lands. Estimates of the extent of leasing of land vary widely but no accurate information is available on this important subject. Leasing out of land, forced upon some of the settlers because of financial or other difficulties, should be closely monitored and the causes identified with a view of avoiding social imbalances in the project area and inequitable distribution of benefits among the settlers. The previous supervision mission had recommended a study of the socio-economic situation of the settlers. MEA informed the mission that the National Institute of Business Management is completing a study to evaluate the impact of the various development programs in the H areas and that this study will also give an insight of the current socio-economic status of the settlers.

7. Project staff suggested that the emphasis on construction activities in the early years and the relatively late involvement of MEA may have negatively affected the well-being of part of the settler population. In the new B and C systems construction and development activities are better synchronised. Project staff are actively exploring the possibilities to improve the conditions for the settlers in the H area, for example by providing assistance in the procurement of building materials for their houses. The mission fully agrees that the situation should be closely monitored and that appropriate actions should be taken to improve the settlers chances to succeed.

VI. Water Management

8. With almost all major engineering works completed, the project is entering a transition phase with main emphasis shifting from construction to operation and maintenance. Water supply to and within the project area must be closely tuned to agricultural demands. The variable weather pattern and occasional water supply shortages, particularly during Yala, make it difficult to operate an efficient system in a manner that benefits all farmers equally. The organised structure for O&M is now reasonably well established but duties, number and quality of staff, particularly those assigned to the lower end of the system, and the clear definition of the responsibilities of several units involved require attention. The Water Management Secretariat (WMS) within the Mahaveli Authority has the process of preparing seasonal operating plans, including monthly deliveries to the project reservoirs, well in hand. There remains much scope for the necessary fine tuning of water supply and water demand on a weekly and preferably daily basis. Present imbalances between water delivery to, and water off-take by the system are now reduced to some degree by the available storage capacity in the tanks. Progress has also been made on improving the water delivery system from headworks to the field by MEA's Project Water Management Panel, the Flow Monitoring Unit and the Data Processing Bureau. Present water delivery schedules and releases from the reservoirs are based to a certain degree on weekly to ten-day water demand estimates collected from the irrigation units, the irrigation blocks and the irrigation sub-systems respectively, as well as on experience obtained during seasons. With the present supply system a more flexible operation, at least to the distribution channels, is possible. Using the present approach, problems are likely to occur especially during

periods of water shortage. There is also a tendency to centrally plan the water delivery from top to bottom. However, the mission is pleased to note the extent to which the MEA has been able to take action to improve water management and monitoring following the proposals made by consultant Edwin Sullivan in 1984. The mission recommends that continued efforts should be made to improve the prediction of required water delivery. This will require collecting, analysing and processing of data on cropping patterns, soil types, weather conditions, and irrigation methods and practices. It will also require feedback of information from the field regarding the surpluses or deficits in the canal supply during previous days.

9. To improve upon the efficiency of water use in relation to crop production the following will also need further attention:

- (a) Water distribution and control below the field turn out; on-farm water use; irrigation methods and practices for crops other than rice. Field water management should be an essential part of the total package to intensify and diversify crop production which may enquire support of adaptive research.
- (b) Trials and demonstrations in farmer's fields and training of farmer groups;
- (c) The need for adequate drainage must be periodically reviewed;
- (d) Timely delivery of water at the turn out, particularly during periods of water shortage; special attention should be given to the tail-end problems;
- (e) Transmission of information from the field to the Project Management Unit;
- (f) As part of overall crop improvement program, testing and further development of water management in one or two selected areas of some 750 acres through intervention programmes (see para 28);
- (g) Streamlining the organisational structure of project management; appointment of a single project manager for the entire II area with overall responsibility, including policy matters and of a deputy project manager to assist in the day to day management; and upgrading of the function of the DRPM, water management;
- (h) Communication between the various locations of the system and the day to day information exchange between the project and the Water Management Secretariat at Colombo including hooking up the project computer with facilities already present at WMS.

10. Demand Irrigation Pipe Scheme. This pipe supply system has been utilized over 3-4 years but there is yet no conclusive evidence of its performance when used as a true demand system. It is not therefore possible to determine its suitability for more general use in II area. The unit could however, provide an excellent resource for trial and demonstration of alternative systems of irrigation, drainage and cultivation of other field crops.

The system should therefore be recognized and maintained as a valuable and flexible facility.

VII. Agriculture

11. Crop Production. Details on crop areas and production since the last supervision mission visited the area are as follows:

(i) Rice

	<u>Area Cultivated (ha)</u>	<u>Average Yield (MT/ha)</u>	<u>Production '000 MT</u>
Maha 1983/84	28,559	4.44	126.8
Yala 1984	16,847	3.10	52.1
Maha 1984/85	28,575 ^{1/}	N.A.	N.A.

^{1/} Up to 31/12/84

(ii) Other Field Crops - Yala 1984

Chillies	5,027	1.54	7.7
Soya Beans	58	1.0	0.06
Cow Peas	168	0.9	0.15
Green Gram	83	N.A.	N.A.
Bombay Onion	37	N.A.	N.A.
Vegetables	206	N.A.	N.A.
Others	-----	N.A.	N.A.
TOTAL	5,643		

12. The mission has the following comments:

- (i) The above figures were given by MEA field staff; in earlier years some years some discrepancies were noted between data given by MEA and the Department of Census and Statistics.
- (ii) During Maha virtually the entire irrigable area (i.e. 92%) is planted with rice. Yields in 1983/84 Maha were somewhat lower than in the previous year because of drought conditions during the early part of the season and floods during the end of the season.
- (iii) During 1984 Yala season about 75% of the irrigable area was planted due to abnormal abundant water supplies. During the previous three Yala seasons (1981-1983) only 20-30% of the irrigable area was planted. Availability of water is clearly the determining factor for the extent of Yala cultivation. Project staff estimate that 60-70% of the area can be cultivated during an average Yala year. The mission is of the opinion that the extent of Yala cultivation will, to a high degree, depend on

project staff and farmers' efforts to improve water management practices in the area.

(iv) Rice is still the dominant crop during the Yala season for want of profitable other field crops. Chillies is the only field crop that has replaced paddy to a significant extent, mainly due to the availability of an attractive market.

(v) The use of fertilizer in Maha paddy is increasing (with the exception of 1982/83) and the quantities used are now about 60% of recommended quantities. There was a sharp drop in fertilizer usage in 1982/83 due to unfavourable weather conditions. (see (ii) above).

13. Credit. The repayment position for cultivation loans continues to worsen. In the Kalawewa sector (areas H1, H2, H7 and H9), for example, about 3,900 farmers out of a total of about 10,300 were on 31/12/84 in default on crop loans issued between 1980 and 1983 Yala season. An additional 1,550 farmers had not yet repaid their 1983/84 Maha cultivation loans. As a result of this situation, no less than 53% of all farmers in the area were ineligible to take up a cultivation loan for the 1984/85 Maha season and it seems clear that credit issues are substantially lower than in earlier years. Relatively poor harvests in 1983/84 Maha, and particularly during 1981/82 Maha, we've cited by project staff as reasons for the poor credit situation. Compensation amounts paid by the Agricultural Insurance Board were in many cases insufficient to cover the outstanding loans.

14. The mission understands that the Central Bank is prepared to support rescheduling of loans of non-wilful defaulters through the provision of refinance facilities at concessionary rates beyond the standard 270-day cultivation loan period. Operating instructions are to be issued shortly by the Central Bank to the participating banks. The decision whether or not defaulters would qualify for re-scheduling of their loans would be made by the participating banks. The mission believes that such a scheme would help ameliorate the situation, provided that caution is exercised in deciding whether the defaulter is willing and capable to repay his loan during the extended period. At the same time, concerted joint efforts should be made by Bank officers and MEA staff to motivate farmers to repay their loans on time. An experiment of this nature undertaken in System C proved to be successful and should be replicated in other areas such as System H.

Input Supplies and Marketing of Crop Produce

15. Input Supplies. MEA acts as agent for suppliers of major farm inputs (i.e. (i) seeds, obtained from Department of Agriculture and from farmers licensed to produce such seeds; (ii) fertilizer, supplied by the Fertilizer Corporation; and (iii) the agro-chemicals supplied by private firms and the Petroleum Corporation. MEA transports the inputs from the suppliers warehouse to the stores located in the project area, from where the inputs are sold to the farmers on cash terms or on credit. The system works well and MEA is performing an indispensable role in the situation where few private traders have as yet established themselves in the new settlement areas. It is estimated that MEA handles at present all seed supplies; about 70% of the fertilizer supplies and about one-half of the agro-chemicals used

in the project area. The mission understands that MEA's future role in the supply of inputs is under discussion. A valid argument can be made for encouragement of the private sector to take over a greater share of the input trade. The mission invites COSL/MASL to communicate its intentions to the financing agencies.

16. Marketing. Almost all crop produce sold by the farmers is handled by private traders. The Paddy Marketing Board purchased only 1,422 MT rice in 1983/84 Maha and 871 MT in 1984 Yala, or less than 2% of the total rice production in each season. The relatively small purchase by the PMB have, however, helped maintain floor prices for rice. Information on official purchases of other field crops was not available to the mission and is believed to be insignificant. An urgent need exists to identify other profitable field crops, in addition to green chillies which have been selling well during recent Yala seasons. MEA intends to commission a study by the Business Investment Center to investigate possibilities for agro-business and other activities in the project area. The mission fully supports this and recommends that the study be extended to consider whether it would be desirable for MEA to establish crop drying facilities, temporary storage for perishable crops and market facilities in the area.

Agricultural Extension and Training

17. A large and comprehensive training program covering a wide spectrum of agricultural, vocational and community development subjects was planned for 1984. The mission was informed that it had been possible to complete about 60% of the training programs for staff and settlers, which is a remarkable achievement. An equally ambitious program covering a wide range of topics has been planned for 1985. The training program is becoming increasingly well equipped with audio-visual and other teaching aids, but, in the opinion of the mission could be strengthened considerably, with little additional outlay, by the appointment of additional staff. The mission urges that continued and expanded support be given to the training program which increasingly includes women. It is also suggested that since the program now reaches a significant number of settler groups, including women, the impact of the various types of training be carefully monitored.

18. Agricultural Extension activities continue with a vigorous program emphasizing timely cultivation, fertilizer application and weed control in paddy. The mission feels that greater emphasis should be placed on aspects of water management and field crops other than rice. The high crop yields achieved in the project area after a relatively short period of development reflect, in a considerable measure, the effectiveness of extension in reaching the farmers. The mission inspected one of a number of verification/demonstration plots in integrated pest management in rice laid out in farmers' fields and was impressed with the approach, quality of work, and the extent of farmer participation. It is recommended that such activities be extended to give greater emphasis on crops other than rice. The results of the proposed integrated crop-livestock management investigations should also be closely followed and included in the extension program as early as possible.

Farm Power and Mechanization

19. Numbers of two-wheeled tractors and draft animals in the project area have increased and in many of the well-established areas the available power for primary cultivation appears to be reasonably well matched to demand under the existing water management regime. Two-wheeled tractors seen by the mission were well maintained and farmers did not complain of difficulty in supply of parts and service. The mission was informed that in 1984/85 issues of water for cultivation were staggered within turn out groups to help farmers share available farm power and that issues were limited to three weeks. However, not all farmers completed their cultivation during the normal cultivation period, nor is it anticipated that it will be feasible to stagger final issues of water to match the sequence of initial issues. The quantity of water used for cultivation may therefore be greater than is desirable. As water management is refined, further greater economy in the use of water for cultivation is expected and the adequacy of, or need for, additional farm power to achieve greater economy will be identified. Any substantial increase in the number of draft animals may require improvement of feed supplies either by better use of crop residues or by production of fodder crops. There is particular need for study on feed availability and the use of draft animals in cultivation and weeding of crops other than rice on the RBE soils.
20. To date, draft animal use has been almost entirely restricted to puddling of paddy fields and to use before carts. MEA is encouraging the use of animals for draft and for production, and is conducting studies to improve efficiency of use of available feedstuff. Commercial pressures alone are likely to lead to progressive merging of the smaller basin to form fields of a size better suited to the use of small tractors. Most of such minor development should be possible using farm tractors or buffalos. Slightly larger plots will also facilitate the use of equipment for land preparation for crops other than paddy. Weed control is currently an expensive and laborious task which could be reduced by line transplanting. This, however, demands much labour during a peak period, and only 1-3% of paddy is line planted at present. If manually operated line planting machines can be introduced, this could facilitate timely transplanting making possible further economy of water use and improving weed control without increased use of chemicals. Present indications are that an average family, growing rice in both Maha and Yala at the present mean cropping intensity of 1.6, will have an income of only about Rs 40/day. To provide an adequate and growing standard of living for the settlers, measures to increase net farm income by increasing output and reducing purchased inputs are required. Investigations and trials are required to determine the appropriateness of equipment, which is within financial reach of farmers, for cultivation and harvesting of rice and other field crops, in the social and physical environment of the project area. It is essential that such trials be conducted in collaboration with farmers and that the social and financial implications, and opportunities for further economy in water use be an integral part of the work. Equipment identified and proven as appropriate for farm use is also likely to be well suited to local manufacturer and repair, using facilities compatible with those required for production of standard components for construction of improved housing for farm families. Some technical assistance and provision of credit to small entrepreneurs may be necessary at early stages of development.

21. Equipment Provided for On-Sale to Farmers. All tractors and trailers provided for on-sale to farmers and ploughs have been distributed. Tined cultivators are being progressively modified and sold. With the pattern of farm power which has evolved in H area the disc harrows are not appropriate and should be sold to best advantage.

22. Integrated Crop-Livestock Production. The Draught Animal Program carried out under the Sri Lanka/Netherlands Livestock Development Program is making good progress in upgrading the local herd to produce and improved dual purpose animal for both draught and milk production. The program is also taking steps to develop marketing and processing facilities, and veterinary and extension services. Yogurt is being produced at present but the program is looking toward expanding the processing facilities to include other milk products as production in the area increases. In addition, plans have been made to implement a program of investigation and demonstration to fully integrate livestock into the present crop-based farming system. The mission was pleased to note this development and fully endorses the proposed activities. It is urged that the necessary resources for this important program be provided on a timely basis.

VIII. Operation and Maintenance.

23. The mission has some concerns about the state of maintenance and repair of irrigation canals and structures, both above and below the turn out points. In a number of places the mission observed damaged structures and excessive weed growth in the canals. Above the turnout point MEA is responsible for maintenance and repair of irrigation infrastructure and MEA also repairs damaged structures below the turn out point. The farmers have to maintain the field channels. MEA staff have made a detailed assessment of the condition of all structures and canals above the turn-out-points. Plans have been drawn up to make the necessary repairs. A major part of the equipment for construction has been transferred to other projects. Care should be taken that sufficient equipment be kept in System H for O&M. MEA management considers the budget allocation for O&M for 1985 adequate. The mission recommends that annual budget requirements should be prepared with great care and with ample provisions for contingencies. The mission also recommends that, projections should be made for O&M budget requirements for the following five years, with adequate provisions for periodic major repairs for larger structures and for replacement of equipment. The long term estimates should be updated each year.

24. With regard to the maintenance to be undertaken by the farmers themselves below the turn out points, project staff should continue to motivate the settlers. Structures are often improperly used, resulting in spillage of water. The mission also noted that some farmers have changed the original field lay-out to suit local conditions and/or to increase their share of the water supply. MEA should monitor this and give proper advice to the farmers when needed.

25. Maintenance and Equipment. The workshop at Thambuttegama is awaiting delivery of some additional machine tools. When these are supplied it will provide adequate repair facilities for all the O&M plant and vehicles required, provided that a sufficient number of skilled mechanics can be

retained. Proposals by the project staff to initiate an apprentice training program at Thambuttegama should benefit some local youth and ensure future availability of skilled staff.

IX. Cost Recovery.

26. Recovery of operation and maintenance (O&M) charges started with the completion of the 1983/84 Maha harvest. Charges are collected at the rate of Rs 100 per acre (50% of estimated O&M cost), and will be periodically increased to the estimated full O&M costs of Rs 200 in 1989 (constant 1983 prices). As of November 30, 1984, about 60% of the assessed amount for that year had been collected in the Mahaweli project areas as against about 13% in the non-Mahaweli area. Farmer response to the introduction of O&M charges has been positive and collection of the remaining 40% is continuing. Progress in preparing for land sales has been slower; only few permits have been issued. However, in the three Regional Project Managers' areas of System H 89, 85, and 60% respectively of all permits are ready for issue. Survey of individual allotments is about 20% complete and is expected to be completed by end 1985 as planned. The issue of Grants, which follows the issue of permits, can only be commenced after determination of the purchase price of allotments. The Ministry of Lands and Land Development has prepared a draft paper on the subject which is presently under consideration by the Ministry. A decision is expected in the next few months, after which a start will be made with the initial land sales.

X. Technical Assistance.

27. With the present project coming to an end in June 1985 little room remains for funding of additional technical assistance under the present project. Support to System H will, however, continue from other sources, for instance the CIDA-supported telecommunication project and the Dutch-assisted integration of crop and livestock production. The mission recommends that concerted efforts should continue to improve the agricultural, economic and social viability of project H. GOSL may wish to consider inviting external assistance for training; computer work; the introduction, trial and local manufacturing of small farm equipment, and storage and processing for crops other than rice.

28. To identify the most needed actions the mission suggests that two representative areas, each served by one distributory channel (about 750 acres each) should be selected. An intensive program to assist farmers to improve incomes from rice and other crops suited to the prevailing soils and available water supply would be carried out in the two selected areas. Ongoing demonstration and training programs would be intensified. Particular emphasis would be placed on the broader aspects of development to improve the socio-economic conditions of all rural groups, including women.

29. The proposed program would be implemented in two phases. During Phase I a survey would be carried out to identify the constraints which could then be overcome by interventions using existing knowledge. In addition, new approaches aimed at increasing farm production and incomes and improving the farmers giving conditions, would be tested. During Phase II, information thus obtained and the experience gained subsequently would be applied to the whole of System H and would also benefit the planning and execution of other

projects. The proposed program would be closely integrated in MEA's ongoing work programs using as much as possible its own manpower and resources. Additional funds for the proposed program could be requested from and probably be made available by bilateral sources.

XI. Disbursement and Status of Donor Funding

30. As of December 31, 1984, a total of about US\$13.4 million donor funds remained undisbursed. It is expected that about US\$5.8 million will be withdrawn before the credit closes on June 30, 1985, resulting in savings of combined donor funds of about US\$7.6 million, as summarized in the table given in Annex I. Disbursement of donor funds is still below expectations, largely because reimbursement of expenditures for civil works under small contracts, claimed against certified statements of expenditures, has been held up pending the completion of satisfactory audits (see para 32). Presuming that problems currently encountered in completing these audits can be resolved, total project costs through the end of the project (June 30, 1985) are estimated at Rs 1.15 billion, as against Rs 1.1 billion estimated during the December 1983 review, reflecting the completion of project works made possible by extending the project through June 1985.

XII. Audit Reports

31. The Audit Report for 1983, completed on January 1985 by Ernst and Whinney was given to the mission without the MASL's comments, which will be provided later. A cursory review of the report by the mission shows that many of the irregularities noted in the audits for previous years have continued which may be partly due to the long delays in preparing and releasing the previous reports. It is noted that the audit report concerns the total MDB account (all project) rather than just the accounts for the Mahaveli II project. The latter was the primary intent of this audit. Nevertheless, of over-riding concern is the statement of opinion by the auditors indicating their inability to carry out satisfactory auditing procedures and to obtain all the information and documents required, stating, "In view of the significance of the matters referred to, we are unable to form an opinion as to whether the said Balance Sheet gives a fair and true view of the state of the Board's affairs as at 31st December, 1983." This is a matter of concern to all donors and to MASL. Clearly, the affairs, accounts and accounting procedures of MDB (now MECA) must be put in order without further delay. Recommendations made by MASL's accounting consultant (Mr. Wick-remaratne) should be adopted as soon as possible and MECA and MEA accountants given the necessary supervision and training to put and keep all accounts in order. If necessary, additional accounting supervision and assistance should be provided. The mission requests a follow-up report from MASL no later than end March 1985 stating the changes which have been made and training programs underway.

32. Of equal concern to IDA are the findings of the Quarterly Audit Reports of the accounts and documents provided by MDB (MECA) in support of disbursement applications for Statements of Expenditure (SOE). The auditors have been unable to find copies of some contracts and supporting documents in their sample surveys of disbursement applications for any quarter, and the reports for more recent quarters appear to highlight more discrepancies than found in audits of previous quarters. One of the major irregularities found

in the audits is that most small scale contracts have been made and signed after completion of the work. The mission was assured that such practices have ceased and that proper contracting procedures are now being followed. At the time of preparation of this Aide Memoire, MASL was still trying to resolve points raised in the quarterly audits and to find the missing documentation. While it appears several (possibly two or three) quarterly audits may eventually find that the accounts and documents supporting quarterly disbursement applications are in order, other applications may have to be returned to MASL and new applications submitted for which adequate documentation is available. These matters are expected to be resolved in the next few weeks.

XIII. Project Completion Report

33. The Planning and Monitoring Unit of MASI prepared a draft PCR in June 1984 and the mission wishes to commend the staff of the Unit for the considerable amount of work they have undertaken. All major subjects to be covered in a PCR have been covered and the quality of the analysis and comments made is generally very good. Because of the short duration of its visit, the mission spent less time with staff of the Unit than it would have wished. The mission intends to review the draft report and additional material made available during this visit in greater depth. The mission intends to communicate further with the Unit in the months ahead through correspondence and possibly a follow-up visit in conjunction with other work. Subjects the mission intends to focus on in the final PCR, to be prepared by IDA, include:

- (i) future organisation and management of the project;
- (ii) financial and institutional aspects of O&M;
- (iii) socio-economic conditions of the settlers.

The mission understands that a number of studies on the last subject have been undertaken by ARTI and other research institutions while some further work is ongoing at this time (para 6). Dr. Attanayake has kindly agreed to collect copies of all relevant studies and to send those to Washington.

XIV. Procurement of O&M Vehicles and Equipment

34. Orders have been placed for all vehicles and equipment covered by IDA's no objection telex of November 26, 1984. Comments made and questions raised by IDA on number of items were discussed between the mission and MEA and resolved as follows:

- (i) The high agency commission quoted by Anosha Associates included customs duties, clearing, handling and transport charges. Excluding these charges the agency commission represent about 11% of CIF cost instead of 33%. IDA had already voiced no objection to the purchase of the equipment at the prices indicated in the November 26 telex.
- (ii) General Sales Co. Ltd. has agreed to a pro-rata distribution of the agency commission, quoted for all equipment offered by this

supplier, as suggested by IDA. The agency commission amounts to 2% of the quoted FOB price for the selected items of equipment. MEA may proceed with the purchase of this equipment.

(iii) MEA clarified that the agency commission for the supply of service station equipment, offered by COBAMIL LTD., was equivalent to 5% of the quoted FOB price of US\$15,383.86 and that this commission was not included in the quoted CIF price of US\$ 16,306.96. MEA may proceed with the purchase of this equipment.

(iv) MEA explained that the 10-ton chain blocks are no longer required.

(v) In accordance with Schedule 3, Section B.1. of the Development Credit Agreement, MEA intends to purchase the items listed below in accordance with GOSL's procurement procedures which specify that quotations would be solicited from five independent suppliers:

- 12 Nos. bench vices
- 5 Nos. theodolites
- 15 Nos. engineering levels
- 15 Nos. levelling staff
- 2 Nos. injector testers
- 1 No. fuel pump test bench

After the award of contracts and before submission of withdrawal applications, MEA should send two conformed copies of each contract together with the analysis of the bids received, to IDA.

STATUS OF DONOR FUNDS

December 31, 1984, Rs Million

	<u>CIDA</u> CS	<u>UK</u> £	<u>USAID</u> US\$	<u>NIO</u> DF£	<u>IDA</u> US\$
Remaining Balance - Loan					
Currency	1.49	.70 <u>2/</u>	.77	4.08	9.31 <u>1/</u>
- US\$ Equiv.	1.19	0.08	.77	1.31	9.31
- Rupee Equiv.	29.80	20.7	19.25	32.64	232.75
Identified Use					
(a) Pending					
Applications - Loan					
Currency	-	-	-	1.49	1.08
- US\$ Equiv.	-	-	-	.48 <u>4/</u>	1.08
- Rupee Equiv.	-	-	-	11.92	27.00
(b) Other					
- Loan					
Currency	1.49 <u>3/</u>	-	-	1.85	2.47
- US\$ Equiv.	1.19	-	-	.59	2.47
- Rupee Equiv.	29.80	-	-	14.80	61.75
Estimated Savings - Loan					
Currency	-	.70	.77 <u>5/</u>	.74	5.76
- US\$ Equiv.	-	0.80	.77	.24	5.76
- Rupee Equiv.	-	20.7	19.25	5.92	144.00
Exchange Rates					
- US\$ 1 = Rs 26.50					
- DFL 1 = Rs 8.00					
- CS 1 = Rs 20.00					
- £ 1 = Rs 29.57					

1/ IDA confirmation has been received only upto November 1984.

2/ Grant amount was for ₹4.3 million. Total disbursements amounts to ₹3.6M. ₹3.3M has been disbursed for equipment and the balance ₹.3M for local cost reimbursement. However these figures have not been confirmed by the ODA.

3/ Amount allocated for communication equipment.

4/ US\$0.20M approved for payment, awaiting NIO confirmation; US\$0.28M awaiting World Bank approval.

5/ Lapsed.

SRI LANKA

MAHAWELI GANGA DEVELOPMENT PROJECT II

Credit 701-CE

Estimated and Actual Disbursements
(US\$ million)

<u>IFA Fiscal Year and Semester</u>	<u>Appraisal Estimates</u>	<u>Revised Estimates</u>	<u>Actuals</u>	<u>Actuals/Revised Estimates as % of Appraisal Estimates</u>
1978				
First <u>1/</u>	-		-	
Second	1.6		-	
1979				
First	4.0		-	
Second	6.4		0.13	2.0
1980				
First	9.5		0.22	2.3
Second	12.6		1.58	12.5
1981				
First	15.0		2.14	14.3
Second	16.6		4.86	29.3
1982				
First	18.2		4.99	27.4
Second	19.0		6.04	31.8
1983				
First	(19.0)		7.22	38.0
Second <u>2/</u>	(19.0)		8.23	43.3
1984				
First	(19.0)		9.29	48.9
Second <u>3/</u>	(19.0)		3.46	49.8
1985				
First	(19.0)		9.69	51.0
Second	(19.0)	13.24		69.0

1/ The credit became effective on December 29, 1977.

2/ The original closing date was June 30, 1983.

3/ The revised closing date is June 30, 1985

ANNEX 4

COUNTRY: SRI LANKA PROJECT TITLE: MAHAWELE CANAL DEV. II L/C: C07010 FY: 77 PROJECT DIV: 18610
PROGRAM DIV: 18330

ACCT#	SECTION	STATUS I/	ORIGINAL DATE	REVISED DATE	DESCRIPTION OF COVENANT	COMMENT
0000	1.05	OK			PROJECT ADVISORY COMMITTEE TO BE MAINTAINED	
	1.06	OK	01/01/78		PROJ TO EMPLOY IMPLEMENTATION ADVISOR AND ON-FARM DEVELOPMENT SPECIALIST	
	1.06A	OK			BORROWER TO MAINTAIN MAHAWELE COORDINATION COMMITTEE AND WARDEN-LEVEL TECHNICAL SUB-COMTES	
	1.06B	OK			BORROWER TO SETTLE EACH SEC OF PROJ AREA NO LATER THAN 3 MOS BEFORE WATER DELIVERY	
	1.07A	OK	01/01/78		BORROWER TO TAKE MEASURES TO BEGIN COLLECTION OF CHARGES IN PUBLICLY FINANCED DEV PROJ	
	1.07B	OK				
	4.01B	SOUR			COST RECOVERY CHARGES TO MEET O&M COSTS PLUS CONSTRUCTION COSTS AS MUCH AS POSSIBLE	1/4/85. Collection of water charges has been introduced at the rate of Rs 100/acre (50% of estimated O&M costs) and will be periodically increased to reach the level of full O&M costs by 1989. As of January 1985, about 68% of the assessed amount for the first year's assessment had been collected. IDA is being regularly furnished a statement of collections.
	4.01B					
	4.02	OK			AUDITED ACCTS/AUDIT REPORTS DUE TO IDA NO LATER THAN 6 MOS AFTER END OF EACH FY	1/14/85. The 1983 report completed 1/2/84 has been received without MASL comments, which will be provided later. Some of the semi-annual audits of expenditures under small-scale contracts for which reimbursement is claimed against statements of expenditure have been received but are being revised by the auditors on the basis of more complete information.
	4.03	OK			PROCEDURES TO MINIMIZE INCIDENCE OF MALARIA TO BE IMPLEMENTED	
	4.04	OK			MAINTENANCE OF IRRIGATION WORKS, ETC., AND AGRICULTURAL EXTENSION SERVICES	
	4.05	OK			SCHOOLS AND MEDICAL CENTERS IN PROJECT AREA TO BE STAFFED	

The World BankINTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT
INTERNATIONAL DEVELOPMENT ASSOCIATION1818 H Street, N.W.
Washington, D.C. 20433
U.S.A.(202) 477-1234
Cable Address INTBAFRAD
Cable Address INDEVAS

March 7 1985

Mr. K.H.S. Gunatilaka
Director General
Mahaweli Authority of Sri Lanka
Colombo
Sri Lanka

Dear Mr. Gunatilaka:

We thank you and the staff of MEA and MECA for the courtesies, cooperation and assistance extended to the January 1985 mission reviewing the implementation progress of the Mahaweli Ganga Development II project (Cr. No. 701-CE). The mission has reported its findings and we endorse the views and recommendations presented in the Aide Memoire left by the mission. Based on past experience, we know that the concerned staff will be taking the necessary follow-up actions to solve the issues raised in the Aide-Memoire and to further improve the implementation of the project.

The project is now nearing completion and, as stated in the Aide-Memoire, the H area has already become an important and productive agricultural region in Sri Lanka. However, now that the necessary infrastructure is essentially in place, a great deal of concentrated attention will need to be given to the further development of settler communities to ensure that the improvement in incomes and living standards will be sustained and be shared equitably by all. The project is moving from the "construction" phase into the "operation and maintenance" phase with all the associated changes. We are pleased to note some of the actions that have already been initiated or are contemplated in anticipation of these changes, and we particularly voice our support for the proposed intensive operational support program in two representative areas, each served by a distributary channel. Using a broad socio-economic approach, this program would systematically identify production and other constraints, apply existing knowledge to overcome such constraints, and also test new approaches. The experience gained would eventually be extended to the whole of the H area during a follow-up phase. Such a program would be extremely useful and timely at this stage and we believe that it would be very suitable for bilateral financial and technical support.

One serious concern which remains is the project's continued inability to provide IDA with satisfactory audit reports. We would be grateful if you could give this issue your personal attention because, unless resolved, IDA will not be able to reimburse a sizable amount of expenditures incurred under small-scale works contracts.

In conclusion, we are pleased to have been associated with you in this important project and we wish you success in its management and operation. Since the credit closes on June 30, 1985 no further review missions are envisioned. However, the finalization of the Project Completion Report will probably require one more visit later this year, which we would make in conjunction with other operational work.

With warm regards,

Yours sincerely,

Stanley J. Baker
Acting Division Chief
Irrigation I Division
South Asia Projects Department

SRI LANKA

MAHAWELI GANGA DEVELOPMENT PROJECT II

CREDIT 701-CE

REVIEW MISSION - AIDE MEMOIRE

(January 1985)

I. Introduction

1. A joint review mission, comprising Messrs. R. Bell, Agricultural Engineering Advisor, ODA, (U.F.), J. Doorenbos, Advisor to the Dutch Ministry for Development Cooperation, H. van Voorthuizen, Senior Agricultural Economist, IDA, and D. Leeuwrik, Senior Agriculturist, IDA (Mission Leader), visited Sri Lanka during January 7 - 14, 1985, to review progress of the Mahaweli Ganga Development II project. Messrs. Gil Haycock, Chief Engineering Officer (Mahaweli), USAID, S. Bruinsma, Second Secretary, Netherlands Embassy, and S. Baker, Deputy Division Chief (Irrigation I), IDA, participated in opening and concluding meetings with Mahaweli staff, chaired by Mr. K.H.S. Gunatilaka, Director General, MASL. Senior MEA and MECA staff accompanied the mission during a field review. This Aide-Memoire summarizes the mission's main findings and recommendations which are subject to confirmation by management. The mission would like to thank the many people who helped them in the review. In particular, the mission expresses its appreciation to Mr. C. Amarasinghe, General Manager, MEA, for his assistance and for arranging the field visits.

II. General Project Implementation Progress

2. Construction of infrastructure and settlement are now almost completed. Approximately 100 ha of on-farm development is still in progress and a small number of resettlers and encroachers are expected to be settled before June 1985. The project was given a second one-year extension till June 30, 1985 to enable completion of the construction of irrigation works, roads and buildings and also on-farm development and settlement. This was interrupted because of unusually heavy rains and floods during early 1984. Now that the major construction phase has been completed, major emphasis is being given to the establishment of an adequate and efficient system of operation and maintenance (O&M) for sustained, high level agricultural production, to increased participation by the settlers and to community development. The H area has already become an important and productive agricultural region in Sri Lanka, although crop yields and production in Maha 1984 were somewhat reduced from previous high levels because of the prolonged heavy rains. With further refinement of the system and on-farm water management, and greater attention now being given to socio-economic development along the lines discussed, the project is expected to fulfill all its major objectives to a greater extent. As indicated by the previous review mission,

agricultural benefits are likely to exceed the appraisal report projections. However, further progress in the development of the settler community, including women groups, should be handled with care and sensitivity to avoid inequities and to ensure that the projected improvement in incomes and quality of life is realized by all.

III. Infrastructure and On-Farm Development

3. Only a small amount of work, mainly roads and building construction, remains to be completed and the mission was assured that this will be substantially achieved by June 1985. It is possible however, that canal lining and construction of wells may not reach the targets. About 80% of the planned number of wells have been completed to date. Headworks construction is virtually complete, but the mission noted with some concern that there are still large numbers of young trees on the Kalawewa main bund. The mission again recommends that trees which are not yet deep rooted should be removed from the bund. The Parshal Flume of Kalawewa RB has been substantially rebuilt in 1984 and has not yet been fully calibrated. The mission observed serious turbulent flow likely to interfere with accurate flow measurement. Modifications to smooth flow are required. The lining of main and branch channels planned for 1984 was disrupted by excessive rains and, as a result, approximately 40% of the work scheduled for 1984 remain to be completed. The mission believes that additional sections of branch, "D" and field channels may require lining as water management is improved. The installation and gauging of structures in "D" and field channels has been substantially completed. Those inspected were of satisfactory quality, and problems identified by the mission in 1983 had been substantially rectified. The balance of on-farm Development work of land clearing, bunding and construction of farm channels in Block 419 is nearing completion.

IV. Machinery and Workshops

4. Most of the construction equipment has now been transferred to other areas since there is need only for a relatively small fleet of plant, trucks and tractors with trailers for O&M work, and vehicles for project staff. Workshop facilities at Thambettegama are more than adequate for System H and could provide overhaul facilities for plant from other areas if necessary. The mission recommends that the machinery requirements for on-going O&M for System H be carefully reviewed now that the main construction phase is finished.

V. Settlement

5. Settlement is now scheduled to be completed by March 31, 1985 with only about 150 settlers to be allotted land, mainly in Block 419. By that time that total number of settlers in the new H areas is expected to reach about 23,600. The mission was impressed by the high level of activity in block 419 where the new settlers had planted paddy within days after the cleared plots had been handed over to them. The majority of the settlers were resettled from neighbouring areas. The mission understands that the allocation of homestead plots is running somewhat behind the allocation of the 2.5 acre crop plots. Efforts should be made to avoid such delays since it may cause hardship for the new settlers.

6. There are indications that an undetermined, but possibly substantial, proportion of the settlers are experiencing difficulties in achieving the projected standards of living. This is evidenced by the relatively large number of credit defaulters (para. 13) and also by the reported leasing out of settlement lands. Estimates of the extent of leasing of land vary widely but no accurate information is available on this important subject. Leasing out of land, forced upon some of the settlers because of financial or other difficulties, should be closely monitored and the causes identified with a view of avoiding social imbalances in the project area and inequitable distribution of benefits among the settlers. The previous supervision mission had recommended a study of the socio-economic situation of the settlers. MEA informed the mission that the National Institute of Business Management is completing a study to evaluate the impact of the various development programs in the H areas and that this study will also give an insight of the current socio-economic status of the settlers.

7. Project staff suggested that the emphasis on construction activities in the early years and the relatively late involvement of MEA may have negatively affected the well-being of part of the settler population. In the new B and C systems construction and development activities are better synchronised. Project staff are actively exploring the possibilities to improve the conditions for the settlers in the H area, for example by providing assistance in the procurement of building materials for their houses. The mission fully agrees that the situation should be closely monitored and that appropriate actions should be taken to improve the settlers chances to succeed.

VI. Water Management

8. With almost all major engineering works completed, the project is entering a transition phase with main emphasis shifting from construction to operation and maintenance. Water supply to and within the project area must be closely tuned to agricultural demands. The variable weather pattern and occasional water supply shortages, particularly during Yala, make it difficult to operate an efficient system in a manner that benefits all farmers equally. The organised structure for O&M is now reasonably well established but duties, number and quality of staff, particularly those assigned to the lower end of the system, and the clear definition of the responsibilities of several units involved require attention. The Water Management Secretariat (WMS) within the Mahaveli Authority has the process of preparing seasonal operating plans, including monthly deliveries to the project reservoirs, well in hand. There remains much scope for the necessary fine tuning of water supply and water demand on a weekly and preferably daily basis. Present imbalances between water delivery to, and water off-take by the system are now reduced to some degree by the available storage capacity in the tanks. Progress has also been made on improving the water delivery system from headworks to the field by MEA's Project Water Management Panel, the Flow Monitoring Unit and the Data Processing Bureau. Present water delivery schedules and releases from the reservoirs are based to a certain degree on weekly to ten-day water demand estimates collected from the irrigation units, the irrigation blocks and the irrigation sub-systems respectively, as well as on experience obtained during seasons. With the present supply system a more flexible operation, at least to the distribution channels, is possible. Using the present approach, problems are likely to occur especially during

periods of water shortage. There is also a tendency to centrally plan the water delivery from top to bottom. However, the mission is pleased to note the extent to which the MEA has been able to take action to improve water management and monitoring following the proposals made by consultant Edwin Sullivan in 1984. The mission recommends that continued efforts should be made to improve the prediction of required water delivery. This will require collecting, analysing and processing of data on cropping patterns, soil types, weather conditions, and irrigation methods and practices. It will also require feedback of information from the field regarding the surpluses or deficits in the canal supply during previous days.

9. To improve upon the efficiency of water use in relation to crop production the following will also need further attention:

- (a) Water distribution and control below the field turn out; on-farm water use; irrigation methods and practices for crops other than rice. Field water management should be an essential part of the total package to intensify and diversify crop production which may enquire support of adaptive research.
- (b) Trials and demonstrations in farmer's fields and training of farmer groups;
- (c) The need for adequate drainage must be periodically reviewed;
- (d) Timely delivery of water at the turn out, particularly during periods of water shortage; special attention should be given to the tail-end problems;
- (e) Transmission of information from the field to the Project Management Unit;
- (f) As part of overall crop improvement program, testing and further development of water management in one or two selected areas of some 750 acres through intervention programmes (see para 28);
- (g) Streamlining the organisational structure of project management; appointment of a single project manager for the entire H area with overall responsibility, including policy matters and of a deputy project manager to assist in the day to day management; and upgrading of the function of the DRPM, water management;
- (h) Communication between the various locations of the system and the day to day information exchange between the project and the Water Management Secretariat at Colombo including hooking up the project computer with facilities already present at WMS.

10. Demand Irrigation Pipe Scheme. This pipe supply system has been utilized over 3-4 years but there is yet no conclusive evidence of its performance when used as a true demand system. It is not therefore possible to determine its suitability for more general use in H area. The unit could however, provide an excellent resource for trial and demonstration of alternative systems of irrigation, drainage and cultivation of other field crops.

The system should therefore be recognized and maintained as a valuable and flexible facility.

VII. Agriculture

11. Crop Production. Details on crop areas and production since the last supervision mission visited the area are as follows:

(i) Rice

	<u>Area Cultivated (ha)</u>	<u>Average Yield (MT/ha)</u>	<u>Production '000 MT</u>
Maha 1983/84	28,559	4.44	126.8
Yala 1984	16,847	3.10	52.1
Maha 1984/85	28,575 ^{1/}	N.A.	N.A.

^{1/} Up to 31/12/84

(ii) Other Field Crops - Yala 1984

Chillies	5,027	1.54	7.7
Soya Beans	58	1.0	0.06
Cow Peas	168	0.9	0.15
Green Gram	83	N.A.	N.A.
Bombay Onion	37	N.A.	N.A.
Vegetables	206	N.A.	N.A.
Others	_____	N.A.	N.A.
TOTAL	5,643		

12. The mission has the following comments:

- (i) The above figures were given by MEA field staff; in earlier years some years some discrepancies were noted between data given by MEA and the Department of Census and Statistics.
- (ii) During Maha virtually the entire irrigable area (i.e. 92%) is planted with rice. Yields in 1983/84 Maha were somewhat lower than in the previous year because of drought conditions during the early part of the season and floods during the end of the season.
- (iii) During 1984 Yala season about 75% of the irrigable area was planted due to abnormal abundant water supplies. During the previous three Yala seasons (1981-1983) only 20-30% of the irrigable area was planted. Availability of water is clearly the determining factor for the extent of Yala cultivation. Project staff estimate that 60-70% of the area can be cultivated during an average Yala year. The mission is of the opinion that the extent of Yala cultivation will, to a high degree, depend on

project staff and farmers' efforts to improve water management practices in the area.

- (iv) Rice is still the dominant crop during the Yala season for want of profitable other field crops. Chillies is the only field crop that has replaced paddy to a significant extent, mainly due to the availability of an attractive market.
- (v) The use of fertilizer in Maha paddy is increasing (with the exception of 1982/83) and the quantities used are now about 60% of recommended quantities. There was a sharp drop in fertilizer usage in 1982/83 due to unfavourable weather conditions. (see (ii) above).

13. Credit. The repayment position for cultivation loans continues to worsen. In the Kalawewa sector (areas H1, H2, H7 and H9), for example, about 3,900 farmers out of a total of about 10,300 were on 31/12/84 in default on crop loans issued between 1980 and 1983 Yala season. An additional 1,550 farmers had not yet repaid their 1983/84 Maha cultivation loans. As a result of this situation, no less than 53% of all farmers in the area were ineligible to take up a cultivation loan for the 1984/85 Maha season and it seems clear that credit issues are substantially lower than in earlier years. Relatively poor harvests in 1983/84 Maha, and particularly during 1981/82 Maha, we've cited by project staff as reasons for the poor credit situation. Compensation amounts paid by the Agricultural Insurance Board were in many cases insufficient to cover the outstanding loans.

14. The mission understands that the Central Bank is prepared to support rescheduling of loans of non-wilful defaulters through the provision of refinance facilities at concessionary rates beyond the standard 270-day cultivation loan period. Operating instructions are to be issued shortly by the Central Bank to the participating banks. The decision whether or not defaulters would qualify for re-scheduling of their loans would be made by the participating banks. The mission believes that such a scheme would help ameliorate the situation, provided that caution is exercised in deciding whether the defaulter is willing and capable to repay his loan during the extended period. At the same time, concerted joint efforts should be made by Bank officers and MEA staff to motivate farmers to repay their loans on time. An experiment of this nature undertaken in System C proved to be successful and should be replicated in other areas such as System H.

Input Supplies and Marketing of Crop Produce

15. Input Supplies. MEA acts as agent for suppliers of major farm inputs (i.e. (i) seeds, obtained from Department of Agriculture and from farmers licensed to produce such seeds; (ii) fertilizer, supplied by the Fertilizer Corporation; and (iii) the agro-chemicals supplied by private firms and the Petroleum Corporation. MEA transports the inputs from the suppliers warehouse to the stores located in the project area, from where the inputs are sold to the farmers on cash terms or on credit. The system works well and MEA is performing an indispensable role in the situation where few private traders have as yet established themselves in the new settlement areas. It is estimated that MEA handles at present all seed supplies; about 70% of the fertilizer supplies and about one-half of the agro-chemicals used

21

in the project area. The mission understands that MEA's future role in the supply of inputs is under discussion. A valid argument can be made for encouragement of the private sector to take over a greater share of the input trade. The mission invites GOSL/MASL to communicate its intentions to the financing agencies.

16. Marketing. Almost all crop produce sold by the farmers is handled by private traders. The Paddy Marketing Board purchased only 1,422 MT rice in 1983/84 Maha and 871 MT in 1984 Yala, or less than 2% of the total rice production in each season. The relatively small purchase by the PMB have, however, helped maintain floor prices for rice. Information on official purchases of other field crops was not available to the mission and is believed to be insignificant. An urgent need exists to identify other profitable field crops, in addition to green chillies which have been selling well during recent Yala seasons. MEA intends to commission a study by the Business Investment Center to investigate possibilities for agro-business and other activities in the project area. The mission fully supports this and recommends that the study be extended to consider whether it would be desirable for MEA to establish crop drying facilities, temporary storage for perishable crops and market facilities in the area.

Agricultural Extension and Training

17. A large and comprehensive training program covering a wide spectrum of agricultural, vocational and community development subjects was planned for 1984. The mission was informed that it had been possible to complete about 60% of the training programs for staff and settlers, which is a remarkable achievement. An equally ambitious program covering a wide range of topics has been planned for 1985. The training program is becoming increasingly well equipped with audio-visual and other teaching aids, but, in the opinion of the mission could be strengthened considerably, with little additional outlay, by the appointment of additional staff. The mission urges that continued and expanded support be given to the training program which increasingly includes women. It is also suggested that since the program now reaches a significant number of settler groups, including women, the impact of the various types of training be carefully monitored.

18. Agricultural Extension activities continue with a vigorous program emphasizing timely cultivation, fertilizer application and weed control in paddy. The mission feels that greater emphasis should be placed on aspects of water management and field crops other than rice. The high crop yields achieved in the project area after a relatively short period of development reflect, in a considerable measure, the effectiveness of extension in reaching the farmers. The mission inspected one of a number of verification/demonstration plots in integrated pest management in rice laid out in farmers' fields and was impressed with the approach, quality of work, and the extent of farmer participation. It is recommended that such activities be extended to give greater emphasis on crops other than rice. The results of the proposed integrated crop-livestock management investigations should also be closely followed and included in the extension program as early as possible.

Farm Power and Mechanization

19. Numbers of two-wheeled tractors and draft animals in the project area have increased and in many of the well-established areas the available power for primary cultivation appears to be reasonably well matched to demand under the existing water management regime. Two-wheeled tractors seen by the mission were well maintained and farmers did not complain of difficulty in supply of parts and service. The mission was informed that in 1984/85 issues of water for cultivation were staggered within turn out groups to help farmers share available farm power and that issues were limited to three weeks. However, not all farmers completed their cultivation during the normal cultivation period, nor is it anticipated that it will be feasible to stagger final issues of water to match the sequence of initial issues. The quantity of water used for cultivation may therefore be greater than is desirable. As water management is refined, further greater economy in the use of water for cultivation is expected and the adequacy of, or need for, additional farm power to achieve greater economy will be identified. Any substantial increase in the number of draft animals may require improvement of feed supplies either by better use of crop residues or by production of fodder crops. There is particular need for study on feed availability and the use of draft animals in cultivation and weeding of crops other than rice on the RBE soils.
20. To date, draft animal use has been almost entirely restricted to puddling of paddy fields and to use before carts. MEA is encouraging the use of animals for draft and for production, and is conducting studies to improve efficiency of use of available feedstuff. Commercial pressures alone are likely to lead to progressive merging of the smaller basin to form fields of a size better suited to the use of small tractors. Most of such minor development should be possible using farm tractors or buffalos. Slightly larger plots will also facilitate the use of equipment for land preparation for crops other than paddy. Weed control is currently an expensive and laborious task which could be reduced by line transplanting. This, however, demands much labour during a peak period, and only 1-3% of paddy is line planted at present. If manually operated line planting machines can be introduced, this could facilitate timely transplanting making possible further economy of water use and improving weed control without increased use of chemicals. Present indications are that an average family, growing rice in both Maha and Yala at the present mean cropping intensity of 1.6, will have an income of only about Rs 40/day. To provide an adequate and growing standard of living for the settlers, measures to increase net farm income by increasing output and reducing purchased inputs are required. Investigations and trials are required to determine the appropriateness of equipment, which is within financial reach of farmers, for cultivation and harvesting of rice and other field crops, in the social and physical environment of the project area. It is essential that such trials be conducted in collaboration with farmers and that the social and financial implications, and opportunities for further economy in water use be an integral part of the work. Equipment identified and proven as appropriate for farm use is also likely to be well suited to local manufacturer and repair, using facilities compatible with those required for production of standard components for construction of improved housing for farm families. Some technical assistance and provision of credit to small entrepreneurs may be necessary at early stages of development.

21. Equipment Provided for On-Sale to Farmers. All tractors and trailers provided for on-sale to farmers and ploughs have been distributed. Tined cultivators are being progressively modified and sold. With the pattern of farm power which has evolved in H area the disc harrows are not appropriate and should be sold to best advantage.

22. Integrated Crop-Livestock Production. The Draught Animal Program carried out under the Sri Lanka/Netherlands Livestock Development Program is making good progress in upgrading the local herd to produce and improved dual purpose animal for both draught and milk production. The program is also taking steps to develop marketing and processing facilities, and veterinary and extension services. Yogurt is being produced at present but the program is looking toward expanding the processing facilities to include other milk products as production in the area increases. In addition, plans have been made to implement a program of investigation and demonstration to fully integrate livestock into the present crop-based farming system. The mission was pleased to note this development and fully endorses the proposed activities. It is urged that the necessary resources for this important program be provided on a timely basis.

VIII. Operation and Maintenance.

23. The mission has some concerns about the state of maintenance and repair of irrigation canals and structures, both above and below the turn out points. In a number of places the mission observed damaged structures and excessive weed growth in the canals. Above the turnout point MEA is responsible for maintenance and repair of irrigation infrastructure and MEA also repairs damaged structures below the turn out point. The farmers have to maintain the field channels. MEA staff have made a detailed assessment of the condition of all structures and canals above the turn-out-points. Plans have been drawn up to make the necessary repairs. A major part of the equipment for construction has been transferred to other projects. Care should be taken that sufficient equipment be kept in System H for O&M. MEA management considers the budget allocation for O&M for 1985 adequate. The mission recommends that annual budget requirements should be prepared with great care and with ample provisions for contingencies. The mission also recommends that, projections should be made for O&M budget requirements for the following five years, with adequate provisions for periodic major repairs for larger structures and for replacement of equipment. The long term estimates should be updated each year.

24. With regard to the maintenance to be undertaken by the farmers themselves below the turn out points, project staff should continue to motivate the settlers. Structures are often improperly used, resulting in spillage of water. The mission also noted that some farmers have changed the original field lay-out to suit local conditions and/or to increase their share of the water supply. MEA should monitor this and give proper advice to the farmers when needed.

25. Maintenance and Equipment. The workshop at Thambuttegama is awaiting delivery of some additional machine tools. When these are supplied it will provide adequate repair facilities for all the O&M plant and vehicles required, provided that a sufficient number of skilled mechanics can be

retained. Proposals by the project staff to initiate an apprentice training program at Thambuttegama should benefit some local youth and ensure future availability of skilled staff.

IX. Cost Recovery.

26. Recovery of operation and maintenance (O&M) charges started with the completion of the 1983/84 Maha harvest. Charges are collected at the rate of Rs 100 per acre (50% of estimated O&M cost), and will be periodically increased to the estimated full O&M costs of Rs 200 in 1989 (constant 1983 prices). As of November 30, 1984, about 60% of the assessed amount for that year had been collected in the Mahaweli project areas as against about 13% in the non-Mahaweli area. Farmer response to the introduction of O&M charges has been positive and collection of the remaining 40% is continuing. Progress in preparing for land sales has been slower; only few permits have been issued. However, in the three Regional Project Managers' areas of System H 89, 85, and 60% respectively of all permits are ready for issue. Survey of individual allotments is about 20% complete and is expected to be completed by end 1985 as planned. The issue of Grants, which follows the issue of permits, can only be commenced after determination of the purchase price of allotments. The Ministry of Lands and Land Development has prepared a draft paper on the subject which is presently under consideration by the Ministry. A decision is expected in the next few months, after which a start will be made with the initial land sales.

X. Technical Assistance.

27. With the present project coming to an end in June 1985 little room remains for funding of additional technical assistance under the present project. Support to System H will, however, continue from other sources, for instance the CIDA-supported telecommunication project and the Dutch-assisted integration of crop and livestock production. The mission recommends that concerted efforts should continue to improve the agricultural, economic and social viability of project H. COSL may wish to consider inviting external assistance for training; computer work; the introduction, trial and local manufacturing of small farm equipment, and storage and processing for crops other than rice.

28. To identify the most needed actions the mission suggests that two representative areas, each served by one distributory channel (about 750 acres each) should be selected. An intensive program to assist farmers to improve incomes from rice and other crops suited to the prevailing soils and available water supply would be carried out in the two selected areas. Ongoing demonstration and training programs would be intensified. Particular emphasis would be placed on the broader aspects of development to improve the socio-economic conditions of all rural groups, including women.

29. The proposed program would be implemented in two phases. During Phase I a survey would be carried out to identify the constraints which could then be overcome by interventions using existing knowledge. In addition, new approaches aimed at increasing farm production and incomes and improving the farmers giving conditions, would be tested. During Phase II, information thus obtained and the experience gained subsequently would be applied to the whole of System H and would also benefit the planning and execution of other

projects. The proposed program would be closely integrated in MEA's ongoing work programs using as much as possible its own manpower and resources. Additional funds for the proposed program could be requested from and probably be made available by bilateral sources.

XI. Disbursement and Status of Donor Funding

30. As of December 31, 1984, a total of about US\$13.4 million donor funds remained undisbursed. It is expected that about US\$5.8 million will be withdrawn before the credit closes on June 30, 1985, resulting in savings of combined donor funds of about US\$7.6 million, as summarized in the table given in Annex I. Disbursement of donor funds is still below expectations, largely because reimbursement of expenditures for civil works under small contracts, claimed against certified statements of expenditures, has been held up pending the completion of satisfactory audits (see para 32). Presuming that problems currently encountered in completing these audits can be resolved, total project costs through the end of the project (June 30, 1985) are estimated at Ks 1.15 billion, as against Rs 1.1 billion estimated during the December 1983 review, reflecting the completion of project works made possible by extending the project through June 1985.

XII. Audit Reports

31. The Audit Report for 1983, completed on January 1985 by Ernst and Whinney was given to the mission without the MASL's comments, which will be provided later. A cursory review of the report by the mission shows that many of the irregularities noted in the audits for previous years have continued which may be partly due to the long delays in preparing and releasing the previous reports. It is noted that the audit report concerns the total MDB account (all project) rather than just the accounts for the Mahaveli II project. The latter was the primary intent of this audit. Nevertheless, of over-riding concern is the statement of opinion by the auditors indicating their inability to carry out satisfactory auditing procedures and to obtain all the information and documents required, stating, "In view of the significance of the matters referred to, we are unable to form an opinion as to whether the said Balance Sheet gives a fair and true view of the state of the Board's affairs as at 31st December, 1983." This is a matter of concern to all donors and to MASL. Clearly, the affairs, accounts and accounting procedures of MDB (now MECA) must be put in order without further delay. Recommendations made by MASL's accounting consultant (Mr. Wick-remaratne) should be adopted as soon as possible and MECA and MEA accountants given the necessary supervision and training to put and keep all accounts in order. If necessary, additional accounting supervision and assistance should be provided. The mission requests a follow-up report from MASL no later than end March 1985 stating the changes which have been made and training programs underway.

32. Of equal concern to IDA are the findings of the Quarterly Audit Reports of the accounts and documents provided by MDB (MECA) in support of disbursement applications for Statements of Expenditure (SOE). The auditors have been unable to find copies of some contracts and supporting documents in their sample surveys of disbursement applications for any quarter, and the reports for more recent quarters appear to highlight more discrepancies than found in audits of previous quarters. One of the major irregularities found

in the audits is that most small scale contracts have been made and signed after completion of the work. The mission was assured that such practices have ceased and that proper contracting procedures are now being followed. At the time of preparation of this Aide Memoire, MASL was still trying to resolve points raised in the quarterly audits and to find the missing documentation. While it appears several (possibly two or three) quarterly audits may eventually find that the accounts and documents supporting quarterly disbursement applications are in order, other applications may have to be returned to MASL and new applications submitted for which adequate documentation is available. These matters are expected to be resolved in the next few weeks.

XIII. Project Completion Report

33. The Planning and Monitoring Unit of MASL prepared a draft PCR in June 1984 and the mission wishes to commend the staff of the Unit for the considerable amount of work they have undertaken. All major subjects to be covered in a PCR have been covered and the quality of the analysis and comments made is generally very good. Because of the short duration of its visit, the mission spent less time with staff of the Unit than it would have wished. The mission intends to review the draft report and additional material made available during this visit in greater depth. The mission intends to communicate further with the Unit in the months ahead through correspondence and possibly a follow-up visit in conjunction with other work. Subjects the mission intends to focus on in the final PCR, to be prepared by IDA, include:

- (i) future organisation and management of the project;
- (ii) financial and institutional aspects of O&M;
- (iii) socio-economic conditions of the settlers.

The mission understands that a number of studies on the last subject have been undertaken by ARTI and other research institutions while some further work is ongoing at this time (para 6). Dr. Attanayake has kindly agreed to collect copies of all relevant studies and to send those to Washington.

XIV. Procurement of O&M Vehicles and Equipment

34. Orders have been placed for all vehicles and equipment covered by IDA's no objection telex of November 26, 1984. Comments made and questions raised by IDA on number of items were discussed between the mission and MEA and resolved as follows:

- (i) The high agency commission quoted by Anosha Associates included customs duties, clearing, handling and transport charges. Excluding these charges the agency commission represent about 11% of CIF cost instead of 33%. IDA had already voiced no objection to the purchase of the equipment at the prices indicated in the November 26 telex.
- (ii) General Sales Co. Ltd. has agreed to a pro-rata distribution of the agency commission, quoted for all equipment offered by this

supplier, as suggested by IDA. The agency commission amounts to 2% of the quoted FOB price for the selected items of equipment. MEA may proceed with the purchase of this equipment.

(iii) MEA clarified that the agency commission for the supply of service station equipment, offered by COBAMIL LTD., was equivalent to 5% of the quoted FOB price of US\$15,383.86 and that this commission was not included in the quoted CIF price of US\$ 16,306.96. MEA may proceed with the purchase of this equipment.

(iv) MEA explained that the 10-ton chain blocks are no longer required.

(v) In accordance with Schedule 3, Section B.1. of the Development Credit Agreement, MEA intends to purchase the items listed below in accordance with GOSL's procurement procedures which specify that quotations would be solicited from five independent suppliers:

- 12 Nos. bench vices
- 5 Nos. theodolites
- 15 Nos. engineering levels
- 15 Nos. levelling staff
- 2 Nos. injector testers
- 1 No. fuel pump test bench

After the award of contracts and before submission of withdrawal applications, MEA should send two conformed copies of each contract together with the analysis of the bids received, to IDA.

STATUS OF DONOR FUNDS

December 31, 1984, Rs Million

	<u>CIDA</u> C\$	<u>UK</u> £	<u>USAID</u> US\$	<u>NIO</u> DFL	<u>IDA</u> US\$
Remaining Balance - Loan					
Currency	1.49	.70 <u>2/</u>	.77	4.08	9.31 <u>1/</u>
- US\$ Equiv.	1.19	0.08	.77	1.31	9.31
- Rupee Equiv.	29.80	20.7	19.25	32.64	232.75
Identified Use					
(a) Pending					
Applications - Loan					
Currency	-	-	-	1.49	1.08
- US\$ Equiv.	-	-	-	.48 <u>4/</u>	1.08
- Rupee Equiv.	-	-	-	11.92	27.00
(b) Other					
- Loan					
Currency	1.49 <u>3/</u>	-	-	1.85	2.47
- US\$ Equiv.	1.19	-	-	.59	2.47
- Rupee Equiv.	29.80	-	-	14.80	61.75
Estimated Savings - Loan					
Currency	-	.70	.77 <u>5/</u>	.74	5.76
- US\$ Equiv.	-	0.80	.77	.24	5.76
- Rupee Equiv.	-	20.7	19.25	5.92	144.00
Exchange Rates					
- US\$ 1 = Rs 26.50					
- DFL 1 = Rs 8.00					
- C\$ 1 = Rs 20.00					
- £ 1 = Rs 29.57					

- 1/ IDA confirmation has been received only upto November 1984.
- 2/ Grant amount was for ₹4.3 million. Total disbursements amounts to ₹3.6M. ₹3.3M has been disbursed for equipment and the balance ₹.3M for local cost reimbursement. However these figures have not been confirmed by the ODA.
- 3/ Amount allocated for communication equipment.
- 4/ US\$0.20M approved for payment, awaiting NIO confirmation; US\$0.28M awaiting World Bank approval.
- 5/ Lapsed.

SRI LANKA

MAHAWELI GANGA DEVELOPMENT PROJECT II

Credit 701-CE

Estimated and Actual Disbursements
(US\$ million)

<u>IFA Fiscal Year and Semester</u>	<u>Appraisal Estimates</u>	<u>Revised Estimates</u>	<u>Actuals</u>	<u>Actuals/Revised Estimates as % of Appraisal Estimates</u>
1978				
First <u>1/</u>	-		-	
Second	1.6		-	
1979				
First	4.0		-	
Second	6.4		0.13	2.0
1980				
First	9.5		0.22	2.3
Second	12.6		1.58	12.5
1981				
First	15.0		2.14	14.3
Second	16.6		4.86	29.3
1982				
First	18.2		4.99	27.4
Second	19.0		6.04	31.8
1983				
First	(19.0)		7.22	38.0
Second <u>2/</u>	(19.0)		8.23	43.3
1984				
First	(19.0)		9.29	48.9
Second <u>3/</u>	(19.0)		9.46	49.8
1985				
First	(19.0)		9.69	51.0
Second	(19.0)	13.24		69.0

1/ The credit became effective on December 29, 1977.

2/ The original closing date was June 30, 1983.

3/ The revised closing date is June 30, 1985

ANNEX 4

COUNTRY: SRI LANKA PROJECT TITLE: MAHAWELE CANAL DEV. II L/C: C07010 FY: 77 PROJECT DIV: 18610
PROGRAM DIV: 18330

<u>ACFT</u>	<u>SECTION</u>	<u>STATUS</u> <u>1/</u>	<u>ORIGINAL</u> <u>DATE</u>	<u>REVISED</u> <u>DATE</u>	<u>DESCRIPTION OF COVENANT</u>	<u>COMMENT</u>
CR10	1.05	OK			PROJECT ADVISORY COMMITTEE TO BE MAINTAINED	
	1.06	OK	01/01/78		NDB TO EMPLOY IMPLEMENTATION ADVISOR AND ON-FARM DEVELOPMENT SPECIALIST	
	1.06A	OK			BORROWER TO MAINTAIN MAHAWELE COORDINATION COMMITTEE AND WFOC I/L TECHNICAL SUB-COMTEES	
	1.08	OK1			BORROWER TO SETTLE EACH SEC OF PROJ AREA NO EARLIER THAN 3 MNS BEFORE WATER DELIVERY	
	1.09A	OK1	01/01/78		BORROWER TO TAKE MEASURES TO BEGIN COLLECTION OF CHARGES IN PUBLICLY FINANCED DEV PROJIS	
	1.09B	OK			COST RECOVERY CHARGES TO MEET O&M COSTS PLUS CONSTRUCTION COSTS AS MUCH AS POSSIBLE	1/4/85. Collection of water charges has been introduced at the rate of Rs 100/acre (50% of estimated O&M costs) and will be periodically increased to reach the level of full O&M costs by 1989. As of January 1985, about 68% of the assessed amount for the first year's assessment had been collected. IDA is being regularly furnished a statement of collections.
	4.01B	SOUR				
	4.01B				AUDITED ACCTS/AUDIT REPORTS DUE TO IDA NO LATER THAN 6 MNS AFTER END OF EACH FY	1/14/85. The 1983 report completed 1/2/84 has been received without MASL comments, which will be provided later. Some of the semi-annual audits of expenditures under small-scale contracts for which reimbursement is claimed against statements of expenditure have been received but are being revised by the auditors on the basis of more complete information.
	4.02	OK			PROCEDURES TO MONITOR INCIDENCE OF MALARIA TO BE IMPLEMENTED	
	4.03	OK			MAINTENANCE OF IRRIGATION WORKS, ETC., AND AGRICULTURAL EXTENSION SERVICES	
	4.04	OK			SCHOOLS AND MEDICAL CENTERS IN PROJECT AREA TO BE STAFFED	