

CONFORMED COPY

CREDIT NUMBER 3405-GH

Development Credit Agreement

(Agricultural Services Subsector Investment Project)

between

REPUBLIC OF GHANA

and

INTERNATIONAL DEVELOPMENT ASSOCIATION

Dated July 27, 2001

CREDIT NUMBER 3405-GH

DEVELOPMENT CREDIT AGREEMENT

AGREEMENT, dated July 27, 2001, between REPUBLIC OF GHANA (the Borrower) and INTERNATIONAL DEVELOPMENT ASSOCIATION (the Association).

WHEREAS (A) the Borrower, having satisfied itself as to the feasibility and priority of the Project described in Schedule 2 to this Agreement, has requested the Association to assist in the financing of the Project;

(B) the Association has received a letter from the Borrower describing a program of actions, objectives and policies designed to carry out its accelerated agricultural growth and development strategy (the Program) and declaring the Borrower's commitment to the execution of the Program;

(C) the Borrower has requested the Association to support its execution of the Program through a series of Credits over a period of nine years, the proceeds of such Credits to be utilized by the Borrower for the carrying out of the Program; and

WHEREAS the Association has agreed, on the basis, inter alia, of the foregoing, to extend the Credit to the Borrower upon the terms and conditions set forth in this Agreement;

NOW THEREFORE the parties hereto hereby agree as follows:

ARTICLE I

General Conditions; Definitions

Section 1.01. The "General Conditions Applicable to Development Credit Agreements" of the Association, dated January 1, 1985, as amended through October 6, 1999, (the General Conditions), constitute an integral part of this Agreement:

(a) A new paragraph (12) is added to Section 2.01 to read as set forth below, and the existing paragraphs (12) through (14) of said Section are accordingly renumbered as paragraphs (13) through (15):

"12. 'Participating Country' means any country that the Association determines meets the requirements set forth in Section 11 of Resolution No. 194 of the Board of Governors of the Association, adopted on April 8, 1999; and 'Participating Countries' means, collectively, all such countries."; and

(b) The second sentence of Section 5.01 is modified to read:

"Except as the Borrower and the Association shall otherwise agree, no withdrawals shall be made: (a) on account of expenditures in the territories of any country which is not a Participating Country or for goods produced in, or services supplied from, such territories; or (b) for the purpose of any payment to persons or entities, or for any import of goods, if such payment or import, to the knowledge of the Association, is prohibited by a decision of the United Nations Security Council taken under Chapter VII of the Charter of the United Nations."

Section 1.02. Unless the context otherwise requires, the several terms defined in the General Conditions and in the Preamble to this Agreement have the respective meanings therein set forth and the following additional terms have the following meanings:

(a) "AFFSD" means the Agriculture, Forestry and Fisheries Sector Directorate referred to in Part A.1 (d) of the Project;

(b) "Agricultural Extension Development Fund" means the Agricultural Extension Development Fund to be established pursuant to Part A.2 (a) (viii) of the Project;

(c) "Agricultural Extension Development Fund" means the Agricultural Extension Development Fund to be established pursuant to Part A.2 (a) (viii) of the Project;

(d) "AIDS" means the Acquired Immune Deficiency Syndrome;

(e) "APD" means the Animal Production Directorate of the Borrower referred to in Part B.3 (a) of the Project;

(f) "Beneficiary" means a person, entity or organization (including an FBO and a research scientist or specialist) who or which has met the eligibility criteria set out in the Project Implementation Manual and the requirements of Schedule 4 to this Agreement and, as a result, has received, or is entitled to receive, a Grant for the carrying out of a Subproject;

(g) "Cedi" means the currency of the Borrower;

(h) "CSD" means the Crop Services Directorate of MOFA referred to in Part B.2 (a) of the Project;

(i) "CSIR Special Account" means the account referred to in Section 2.02 (b) of this Agreement to be opened in the name of CSIR;

(j) "CSIR" means the Borrower's Council for Scientific and Industrial Research established and operating under the laws of the Borrower;

- (k) "DAES" means the directorate of Agricultural Extension Services of MOFA referred to in Part A.2 (a) of the Project;
- (l) "DOC" means the Borrower's Department of Cooperatives;
- (m) "FBO Development Fund" means the Farmer-Based Organizations Development Fund to be established pursuant to Part C.1 (b) of the Project;
- (n) "FBO" means a Farmer Based Organization, including an agricultural cooperative, established and operating under the laws of the Borrower;
- (o) "GAINS" means the Ghana Agricultural Information Network System of the Borrower referred to in Part A.1 (h) of the Project;
- (p) "GCC" means the Ghana Cooperatives Council established and operating under the laws of the Borrower;
- (q) "GIMPA" means the Ghana Institute of Management and Public Administration established and operating under the laws of the Borrower;
- (r) "Grant Agreement" means the agreement referred to in paragraph 4 of Schedule 4 to this Agreement;
- (s) "Grant" means a grant to be made to finance a Subproject pursuant to Parts A.1 (b) and C.1 (b) of the Project;
- (t) "HIV" means the Human-Immunodeficiency Virus;
- (u) "IAPSO" means the Inter-Agency Procurement Services of the United Nations Development Programme;
- (v) "Initial Deposits" means the initial amounts to be paid into the Project Account pursuant to Section 3.03 (i) of this Agreement;
- (w) "MESW" means the Borrower's Ministry of Employment and Social Welfare;
- (x) "MOFA Special Account" means the account referred to in Section 2.02 (b) of this Agreement to be opened in the name of MOFA;
- (y) "MOFA" means the Borrower's Ministry of Food and Agriculture;
- (z) "NARS" means the Borrower's National Agricultural Research System;
- (aa) "NGOs" means non-governmental organizations;
- (bb) "PCD" means the Program Coordination Division of MOFA;
- (cc) "PPMED" means the Policy, Planning, Monitoring and Evaluation Department of MOFA referred to in Part B.3 (b) (x) of the Project;
- (dd) "PPSRD" means the Plant Protection and Regulatory Services of the Borrower referred to in Part B.2 (b) of the Project;
- (ee) "Project Accounts" means the accounts referred to in Section 3.03 of this Agreement;
- (ff) "Project Implementation Manual" means the Project Implementation Manual referred to in Part A.1 (a) of Schedule 4 to this Agreement;
- (gg) "Project Implementation Manual" means the Project Implementation Manual referred to in paragraph 1 (a) of Schedule 4 to this Agreement;
- (hh) "Project Management Report" means each report prepared in accordance with Section 4.02 of this Agreement;
- (ii) "Project Preparation Advance" means the project preparation advance granted by the Association to the Borrower pursuant to the letter agreement signed on behalf of the Association on July 28, 1999 and on behalf of the Borrower on July 30, 1999;
- (jj) "Project Preparation Advance" means the project preparation advance

(jj) "Project Preparation Advance" means the project preparation advance granted by the Association to the Borrower pursuant to an exchange of letters dated July 28, 1999 and July 30, 1999 respectively, between the Borrower and the Association;

(kk) "Project Year" means the 12 month period beginning from the Effective Date and ending 12 months thereafter and each successive 12 month period following thereafter;

(ll) "RELCs" means the Research Extension and Liaison Committees referred to in Part A.2 (c) of the Project;

(mm) "SMS" means the Subject Matter Specialists participating in the carrying out of the Project;

(nn) "Special Accounts" means the MOFA Special Account and the CSIR Special Account;

(oo) "Subproject" means a subproject (including research proposals and activities relating to the contracting out of agricultural extension development services) to be carried out under Parts A.1 (b), A.2 (a) (viii) and C.1 (b) of the Project which, having met the eligibility criteria set out in the Project Implementation Manual and the provisions of Schedule 4 to this Agreement, is eligible for financing, on a grant basis, in accordance with the provisions of the Project Implementation Manual;

(pp) "UNIPAC" means the United Nations Fund Procurement and Assembly Center;
and

(qq) "VSD" Veterinary Services Directorate of APD.

ARTICLE II

The Credit

Section 2.01. The Association agrees to lend to the Borrower, on the terms and conditions set forth or referred to in the Development Credit Agreement, an amount in various currencies equivalent to fifty million nine hundred thousand Special Drawing Rights (SDR 50,900,000).

Section 2.02. (a) The amount of the Credit may be withdrawn from the Credit Account in accordance with the provisions of Schedule 1 to this Agreement for expenditures made (or, if the Association shall so agree, to be made) in respect of the reasonable cost of goods and services required for the Project and to be financed out of the proceeds of the Credit.

(b) The Borrower may, for the purposes of the Project, open and maintain in dollars two separate special deposit accounts in a commercial bank on terms and conditions satisfactory to the Association, the first of the Special Accounts to be in the name of MOFA (the MOFA Special Account) and the second of the Special Accounts to be in the name of CSIR (the CSIR Special Account). The said terms and conditions shall include appropriate protection against set-off, seizure or attachment. Deposits into, and payments out of each of the Special Accounts shall be made in accordance with the provisions of Schedule 5 to this Agreement.

(c) Promptly after the Effective Date, the Association shall, on behalf of the Borrower, withdraw from the Credit Account and pay to itself the amount required to repay the principal amount of the Project Preparation Advance withdrawn and outstanding as of such date and to pay all unpaid charges thereon. The unwithdrawn balance of the authorized amount of the Project Preparation Advance shall thereupon be canceled.

Section 2.03. The Closing Date shall be October 31, 2003, or such later date as the Association shall establish. The Association shall promptly notify the Borrower of such later date.

Section 2.04. (a) The Borrower shall pay to the Association a commitment charge on the principal amount of the Credit not withdrawn from time to time at a rate to be set by the Association as of June 30 of each year, but not to exceed the rate of

set by the Association as of June 30 of each year, but not to exceed the rate of one-half of one percent (1/2 of 1%) per annum.

(b) The commitment charge shall accrue: (i) from the date sixty days after the date of this Agreement (the accrual date) to the respective dates on which amounts shall be withdrawn by the Borrower from the Credit Account or canceled; and (ii) at the rate set as of the June 30 immediately preceding the accrual date and at such other rates as may be set from time to time thereafter pursuant to paragraph (a) above. The rate set as of June 30 in each year shall be applied from the next date in that year specified in Section 2.06 of this Agreement.

(c) The commitment charge shall be paid: (i) at such places as the Association shall reasonably request; (ii) without restrictions of any kind imposed by, or in the territory of, the Borrower; and (iii) in the currency specified in this Agreement for the purposes of Section 4.02 of the General Conditions or in such other eligible currency or currencies as may from time to time be designated or selected pursuant to the provisions of that Section.

Section 2.05. The Borrower shall pay to the Association a service charge at the rate of three-fourths of one percent (3/4 of 1%) per annum on the principal amount of the Credit withdrawn and outstanding from time to time.

Section 2.06. Commitment charges and service charges shall be payable semiannually on February 1 and August 1 in each year.

Section 2.07. (a) Subject to paragraphs (b), (c) and (d) below, the Borrower shall repay the principal amount of the Credit in semiannual installments payable on each February 1 and August 1 commencing August 1, 2010 and ending February 1, 2040. Each installment to and including the installment payable on February 1, 2020 shall be one percent (1%) of such principal amount, and each installment thereafter shall be two percent (2%) of such principal amount.

(b) Whenever: (i) the Borrower's per capita gross national product (GNP), as determined by the Association, shall have exceeded for three consecutive years the level established annually by the Association for determining eligibility to access the Association's resources; and (ii) the Bank shall consider the Borrower creditworthy for Bank lending, the Association may, subsequent to the review and approval thereof by the Executive Directors of the Association and after due consideration by them of the development of the Borrower's economy, modify the repayment of installments under paragraph (a) above by: (A) requiring the Borrower to repay twice the amount of each such installment not yet due until the principal amount of the Credit shall have been repaid; and (B) requiring the Borrower to commence repayment of the principal amount of the Credit as of the first semiannual payment date referred to in paragraph (a) above falling six months or more after the date on which the Association notifies the Borrower that the events set out in this paragraph (b) have occurred, provided, however, that there shall be a grace period of a minimum of five years on such repayment of principal.

(c) If so requested by the Borrower, the Association may revise the modification referred to in paragraph (b) above to include, in lieu of some or all of the increase in the amounts of such installments, the payment of interest at an annual rate agreed with the Association on the principal amount of the Credit withdrawn and outstanding from time to time, provided that, in the judgment of the Association, such revision shall not change the grant element obtained under the above-mentioned repayment modification.

(d) If, at any time after a modification of terms pursuant to paragraph (b) above, the Association determines that the Borrower's economic condition has deteriorated significantly, the Association may, if so requested by the Borrower, further modify the terms of repayment to conform to the schedule of installments as provided in paragraph (a) above.

Section 2.08. The currency of the United States of America is hereby specified for the purposes of Section 4.02 of the General Conditions.

ARTICLE III

Execution of the Project

Section 3.01. (a) The Borrower declares its commitment to the objectives of the Project as set forth in Schedule 2 to this Agreement, and, to this end, shall carry out the Project with due diligence and efficiency and in conformity with appropriate administrative, financial, technical and environmental practices, and shall provide, promptly as needed, the funds, facilities, services and other resources required for the Project.

(b) Without limitation upon the provisions of paragraph (a) of this Section and except as the Borrower and the Association shall otherwise agree, the Borrower shall carry out the Project in accordance with the Implementation Program set forth in Schedule 4 to this Agreement.

Section 3.02. Except as the Association shall otherwise agree, procurement of the goods, works and consultants' services required for the Project and to be financed out of the proceeds of the Credit shall be governed by the provisions of Schedule 3 to this Agreement.

Section 3.03. The Borrower shall: (i) establish and thereafter maintain in Cedis, until completion of the Project, two Project Accounts in a commercial bank on terms and conditions satisfactory to the Association into which the Borrower shall deposit its Project counterpart costs contribution. The first of the Project Accounts shall be in the name of MOFA and the second of the Project Accounts shall be in the name of CSIR. The Borrower shall pay into the respective Project Accounts: (i) initial amounts in Cedis (the Initial Deposits) equivalent to: (A) \$400,000 for MOFA; and (B) \$250,000 for CSIR; and (ii) thereafter during each following quarter deposit into each of the Project Accounts the amounts required to cover the said contributions for each such quarter, as determined by the Borrower and the Association.

Section 3.04. For the purposes of Section 9.07 of the General Conditions and without limitation thereto, the Borrower shall:

(a) prepare, on the basis of guidelines acceptable to the Association, and furnish to the Association not later than six (6) months after the Closing Date or such later date as may be agreed for this purpose between the Borrower and the Association, a plan designed to ensure the continued achievement of the Project objectives; and

(b) afford the Association a reasonable opportunity to exchange views with the Borrower on said plan.

ARTICLE IV

Financial Covenants

Section 4.01. (a) The Borrower shall maintain a financial management system, including records and accounts, and prepare financial statements in a format acceptable to the Association, adequate to reflect the operations, resources and expenditures related to the Project.

(b) The Borrower shall:

(i) have the records, accounts and financial statements referred to in paragraph (a) of this Section and the records and accounts for the Special Accounts for each fiscal year audited, in accordance with auditing standards acceptable to the Association, consistently applied, by independent auditors acceptable to the Association;

(ii) furnish to the Association as soon as available, but in any case not later than six months after the end of each such year, (A) certified copies of the financial statements referred to in paragraph (a) of this Section for such year as so audited, and (B) an opinion on such statements, records and accounts and report of such audit, by said auditors, of such scope and in such detail as

the Association shall have reasonably requested; and

(iii) furnish to the Association such other information concerning such records and accounts, and the audit thereof, and concerning said auditors, as the Association may from time to time reasonably request.

(c) For all expenditures with respect to which withdrawals from the Credit Account were made on the basis of Project Management Reports or statements of expenditure, the Borrower shall:

(i) maintain or cause to be maintained, in accordance with paragraph (a) of this Section, records and separate accounts reflecting such expenditures;

(ii) retain, until at least one year after the Association has received the audit report for the fiscal year in which the last withdrawal from the Credit Account was made, all records (contracts, orders, invoices, bills, receipts and other documents) evidencing such expenditures;

(iii) enable the Association's representatives to examine such records; and

(iv) ensure that such records and accounts are included in the annual audit referred to in paragraph (b) of this Section and that the report of such audit contains a separate opinion by said auditors as to whether the Project Management Reports or statements of expenditure submitted during such fiscal year, together with the procedures and internal controls involved in their preparation, can be relied upon to support the related withdrawals.

Section 4.02. (a) Without limitation upon the provisions of Section 4.01 of this Agreement, the Borrower shall carry out a time-bound action plan acceptable to the Association for the strengthening of its financial management system for the Project in order to enable the Borrower, not later than July 1, 2001, or such later date as the Association shall agree, to prepare quarterly Project management reports, acceptable to the Association, each of which:

(i) (A) sets forth actual sources and applications of funds for the Project, both cumulatively and for the period covered by said report, and projected sources and applications of funds for the Project for the six-month period following the period covered by said report; and (B) shows separately expenditures financed out of the proceeds of the Credit during the period covered by said report and expenditures proposed to be financed out of the proceeds of the Credit during the six-month period following the period covered by said report;

(ii) (A) describes physical progress in Project implementation, both cumulatively and for the period covered by said report; and (B) explains variances between the actual and previously forecast implementation targets; and

(iii) sets forth the status of procurement under the Project and expenditures under contracts financed out of the proceeds of the Credit, as at the end of the period covered by said report.

(b) Upon the completion of the action plan referred to in paragraph (a) of this Section, the Borrower shall prepare, in accordance with guidelines acceptable to the Association, and furnish to the Association not later than 45 days after the end of each calendar quarter a Project Management Report for such period.

Effective Date; Termination

Section 5.01. The following events are specified as additional conditions to the effectiveness of the Development Credit Agreement within the meaning of Section 12.01 (b) of the General Conditions:

(a) the Borrower has prepared and furnished to the Association a program, in form and substance satisfactory to the Association, for the installation and operation of a management information system for the Project;

(b) the Borrower has installed an accounting and financial management system, in form and substance satisfactory to the Association;

(c) the Borrower has furnished to the Association a Project Implementation Manual in form and substance satisfactory to the Association;

(d) the Borrower has paid the Initial Deposits into the Project Accounts; and

(e) the Borrower has appointed auditors, acceptable to the Association, to carry out the audits required under Section 4.01 (b) of this Agreement.

Section 5.02. The date ninety (90) days after the date of this Agreement is hereby specified for the purposes of Section 12.04 of the General Conditions.

ARTICLE VI

Representative of the Borrower; Addresses

Section 6.01. The Ministry of the Borrower responsible for Finance is designated as representative of the Borrower for the purposes of Section 11.03 of the General Conditions.

Section 6.02. The following addresses are specified for the purposes of Section 11.01 of the General Conditions:

For the Borrower:

Minister of Finance
Ministry of Finance
P.O. Box M40
Accra, Ghana

Cable address:	Telex:	Facsimile:
ECONOMICON	2205 MIFAEPGH	233-21-666709 233-21-663854 233-21-664170

For the Association:

International Development Association
1818 H Street, N.W.
Washington, D.C. 20433
United States of America

Cable address:	Telex:	Facsimile:
INDEVAS Washington, D.C.	248423 (MCI) or 64145 (MCI)	(202) 477-6391

IN WITNESS WHEREOF, the parties hereto, acting through their duly authorized representatives, have caused this Agreement to be signed in their respective names in the District of Columbia, United States of America, as of the day and year first above written.

REPUBLIC OF GHANA

By /s/ Francis A. Tsegah

Authorized Representative

INTERNATIONAL DEVELOPMENT ASSOCIATION

By /s/ Callisto Madavo

Regional Vice President
Africa

SCHEDULE 1

Withdrawal of the Proceeds of the Credit

1. The table below sets forth the Categories of items to be financed out of the proceeds of the Credit, the allocation of the amounts of the Credit to each Category and the percentage of expenditures for items so to be financed in each Category:

Category	Amount of the Credit Allocated (Expressed in SDR Equivalent)	% of Expenditures to be Financed
(1) Works:		95%
(a) MOFA	4,300,000	
(b) CISR	2,400,000	
(2) Goods, vehicles and equipment:		100% of foreign expenditures and 90% of local expenditures
(a) MOFA	7,600,000	
(b) CSIR	2,700,000	
(3) Training and consultants' services including audit services		100%
(a) MOFA	10,300,000	
(b) CSIR	3,000,000	
(4) Grants:		100% of amounts disbursed
(a) MOFA	3,900,000	
(b) CSIR	1,000,000	
(5) Operating Costs:		85%
(a) MOFA	8,300,000	
(b) CSIR	3,100,000	
(6) Refunding of Project Preparation	500,000	Amount due pursuant to Section 2.02 (c)

	Advance		of this Agreement
(7)	Unallocated	3,800,000	
	TOTAL	50,900,000	

2. For the purposes of this Schedule:

(a) the term "foreign expenditures" means expenditures in the currency of any country other than that of the Borrower for goods or services supplied from the territory of any country other than that of the Borrower;

(b) the term "local expenditures" means expenditures in the currency of the Borrower or for goods or services supplied from the territory of the Borrower; and

(c) the term "Operating Costs" means the incremental operating costs arising under the Project on account of maintenance of vehicles, fuel, equipment, office supplies, utilities, consumables, travel per diems and allowances and travel and accommodation but excluding salaries of the Borrower's civil servants.

3. Notwithstanding the provisions of paragraph 1 above, no withdrawals shall be made in respect of:

(a) payments made for expenditures prior to the date of this Agreement; and

(b) a Grant unless the Beneficiary concerned has entered into a Grant Agreement with the Borrower and the Grant in question has been made in accordance with the procedures and other provisions set out or referred to in the Project Operational Manual and this Agreement.

4. The Association may require withdrawals from the Credit Account to be made on the basis of statements of expenditure for: (i) civil works under contracts costing less than \$250,000 equivalent each; (ii) goods under contracts costing less than \$200,000 equivalent each; (iii) consulting services under contracts costing less than: (A) \$100,000 equivalent each for consulting firms; and (B) \$50,000 equivalent each for individual consultants; and (iv) all Operating Costs and training.

SCHEDULE 2

Description of the Project

The objective of the Project, which forms the first phase of the Program, is to increase agricultural productivity and diversification at a rapid pace so that rural incomes will be raised, rural poverty reduced, food security improved and the basis for accelerated overall growth in the economy established on an environmentally sustainable basis.

The Project consists of the following Parts, subject to such modifications thereof as the Borrower and the Association may agree upon from time to time to achieve such objectives:

Part A: Technology Generation and Diffusion

1. Agricultural Research Development

(a) Support for the Borrower's on-going agricultural research programs, and review of the said programs on the basis of priority setting mechanisms developed and revised from time to time, including: (i) release and uptake of new technologies designed to increase agricultural productivity and reduce poverty; (ii) conservation and enhancement of the natural resources base through the intensification of farming systems; (iii) increasing the participation of farmers and other stakeholders in the governance and financing of the NARS; and (iv) strengthening of the technical, administrative, planning, monitoring and financial management capabilities of the NARS.

(b) The establishment of a competitive agricultural research grant scheme to support demand-driven research and provide research funds for good research proposals, including: (i) research and development involving pilot projects demonstrating potential for improved technologies or for development of research products into commercial products; (ii) promotion of partnership between research and non-research groups in the private sector; and (iii) support for international research collaboration involving (A) participation with the private sector and NGOs, (B) rapid technology transfer, and (C) cost recovery possibilities.

(c) The establishment of an Agricultural Research Policy Committee in CSIR to: (i) provide policy guidance on agricultural research; (ii) review the overall workplan and budget for the NARS; and (iii) assist in the raising of funds for agricultural research from public and private sectors.

(d) The strengthening of the natural resources, social science, and monitoring and evaluation capabilities of the Agriculture, Forestry and Fisheries Sector Directorate (AFFSD), including the provision of short-term technical advisory services to develop the skills of AFFSD's staff.

(e) The restructuring of the Borrower's national research programs to include: (i) national commodity programs; (ii) national factor programs; (iii) natural resource management programs; (iv) national social science programs; and (v) on-farm adaptive research programs for each agro-ecological zone.

(f) Upgrading of the Borrower's agricultural research laboratories; reviewing of the capacity and needs of the agricultural research services; formulation of a national strategic plan for developing biotechnology capacity, including the development of a regulatory framework of intellectual property rights and biosafety; the provision of short-term technical advisory services; and the acquisition of equipment for the agricultural research development services.

(g) The carrying out of a human development program, including: (i) the training of Project research staff; (ii) competitive awards of training fellowships; (iii) post-graduate training awards; (iv) training primarily at national universities; (v) thesis research on national problems for external PhD awards; and (vi) fellowships for regional or international conferences.

(h) The provision of training for staff and users of the Ghana Agricultural Information Network System (GAINS), and updating and improvement of GAINS linkages with agricultural databases and universities; and monitoring of GAINS products.

(i) The carrying out of in-country and external training courses for the staff of AFFSD.

2. Agricultural Extension and Technology Diffusion

(a) The reform and strengthening of the Borrower's national agricultural extension system, including: (i) facilitation of clients and the private sector participation in extension activities; (ii) the provision of support to the Directorate of Agricultural Extension Services (DAES) and the regional and district directorates of agriculture; (iii) training of extension staff and farmers; (iv) study tours for extension staff; (v) provision of office buildings and accommodation in the field for extension staff; (vi) acquisition of vehicles and equipment for extension work; (vii) the provision of technical advisory services; and (viii) the establishment of an Agricultural Extension Development Fund to be used for the contracting out of extension services.

(b) Ensuring proper consideration of gender and equity issues in extension activities, including: (i) the training of extension staff to understand and be sensitive to gender issues; (ii) the development by MOFA of strategies to (A) increase female enrollment in the agricultural colleges, and (B) ensure a uniform study curriculum for both males and females in said colleges; and (iii) the training and assignment of women facilitators to serve as focal points for reaching women in the farming communities.

(c) Facilitating agricultural extension linkages in technology, including the

setting up of committees at the district level to facilitate the participation of farmers, traders, input suppliers and agro-processors in the work of the Research-Extension Liaison Committees (RELCs).

(d) The carrying out of a natural resource management scheme, including: (i) the scaling up of pilot soil and water conservation programs; and (ii) collaboration with the Borrower's Savanna Resources Management Center in extension activities.

(e) Training of extension agents in the techniques and dynamics of group formation by the Department of Cooperatives, the Ghana Cooperative Council and selected NGOs.

(f) Support for the activities of the Borrower's Ministry of Health to make the rural communities aware of HIV/AIDS and its prevention, including the training of extension services staff by specialists from said Ministry on the best means of providing basic information on HIV/AIDS in the rural areas.

(g) The strengthening of the Information Support Unit of MOFA to: (i) produce extension leaflets, posters, audio-visual materials on agricultural development and research; and (ii) promote the systematic and more appropriate use of the mass media, including (A) the contracting out to the private sector of the production of some audio-visual teaching aids, and (B) the use of the distance learning centers established at GIMPA and the University of Ghana to link up extension staff and leaders of farmers' organizations with their counterparts in other parts of the world with regard to technology transfer and diffusion.

Part B: Institutional Reform

1. Restructuring and strengthening of MOFA within the framework of the Borrower's decentralization policy, including: (i) the development of the skills of MOFA's staff to formulate national policies, carry out regional development programs, ensure the efficient of delivery of regulatory services, provide information, technical support and training services to the regions, and monitor and evaluate the impact of policies and development programs; and (ii) review of MOFA's organization, staffing levels and management.

2. (a) The strengthening of MOFA's crop production and protection services, including: (i) the expansion of the functions and activities of its Crop Services Directorate (CSD) to enable CSD to deal with issues related to input supplies, production, on-farm and off-farm storage, agro-processing and domestic and export marketing; (ii) the provision of training and technical advisory services to CSD to assist it in carrying out its expanded functions; (iii) the maintenance by CSD of an up to date database on each crop industry; (iv) the dissemination by CSD of up to date production and market information to the crop industry; and (v) the provision of logistical support to CSD including the acquisition of office equipment and vehicles.

(b) Upgrading of the capacities of MOFA's Plant Protection and Regulatory Services (PPRSD) in human resources, information management, policy analysis and the provision of advice, including: (i) the equipping of PPRSD's laboratories; (ii) the training of staff of PPRSD in plant quarantine, seed certification and pesticide management; (iii) the development by PPRSD of a manual for the maintenance of food quality and safety, collection and processing of information on plant protection and the regulatory services nationwide; and (iv) the dissemination by PPRSD of information to stakeholders through publications and databank maintained by PPRSD.

3. (a) Reorienting the functions of MOFA's Animal Production Directorate (APD) and strengthening its capabilities, including: (i) the training of staff of APD; (ii) the provision to APD of farm buildings, equipment and machinery and other logistical support; (iii) the carrying out of a study to (A) design appropriate extension packages, especially for the poor, and (B) provide guidance in livestock research; (iv) the transfer of APD's dairy collection and marketing activities around Accra to FBOs and to APD's dairy cattle breeding farm at Amrahia; (v) the scaling down of said activities to a self-supporting facility of APD; (vi) the expansion of APD's program of improving communal grazing land; (vii) the carrying out of a study to assess the degree of access of the poor to improved communal pastures; (viii) improving local breeds of sheep, goats and pigs; (ix) the management by APD of six breeding stations at Amrahia, Babile, Ejura, Kintampo, Nungua and Pong-Tamale; (x) the relaunching of

APD's Open Nucleus Breeding System to (A) expand the selection base of livestock, and (B) incorporate in APD's recording system about 1,000 breeding animals from livestock farmers; and (xi) the conservation of the West African Shorthorn cattle including the carrying out of a study to determine the best means of effecting the said conservation.

(b) The establishment of sustainable private-sector based animal health delivery systems, including: (i) the expansion of privatization of clinical services in urban areas; (ii) the carrying out of a study into the feasibility of delivering services through private sector contractors and community-based livestock workers; (iii) the development of strategies for the commercialization or privatization of diagnostic vaccine production facilities; (iv) the review of legislation on veterinary medical practice and privatization of delivery of animal health services; (v) the management of the APD's and VSD's livestock revolving fund in a transparent and accountable manner; (vi) the preparation by APD's Tsetse Unit of a program for tsetse control involving (A) close community participation in the planning and financing of the tsetse control activities, and (B) the preparation of detailed plans for community-based tsetse control and an environmental impact assessment of tsetse control activities; (vii) the development and validation of new disease control methods, including the development of (A) a thermo-stable vaccine against Newcastle Disease, and (B) appropriate control strategies against heartwater and dermatophilosis and other new disease challenges; (viii) the carrying out of a feasibility study into the development of virology diagnostic facilities; (ix) the training of staff of APD's Veterinary Services Directorate (VSD) in (A) the analysis of epidemiological data and the provision of technical support for decentralized services, (B) the monitoring of services contracted out, and (C) the privatization and commercialization of delivery of animal health services; and (x) the maintenance in MOFA's Policy, Planning, Monitoring and Evaluation Department (PPMED) of livestock specific expertise and focus through the reintegration of the Borrower's Livestock Planning and Information Unit (LPIU) into the structure of PPMED.

4. (a) The management of fisheries resources, including: (i) the preparation of a fisheries management plan; and (ii) the establishment of a Monitoring Control and Surveillance Fund (MCS Fund).

(b) Strengthening fishing stock assessment both in the marine and Lake Volta, including: (i) the acquisition of equipment; (ii) the training of Project staff; (iii) the transfer of the Marine fisheries Research Division to the Council for Scientific and Industrial Research (CSIR); (iv) the merger of the Fisheries Division of the Borrower's Water Research Institute with the Marine Fisheries Research Division; and (v) review of national fisheries resources management plans by the Fisheries Management Plans Operations Committee (FMPOC).

(c) Promoting aquaculture development to increase fish production through private sector initiative, including the promotion of the formation of fish-farmers associations.

5. Strengthening and utilizing the Borrower's agricultural engineering services to reduce the drudgery of farm work, particularly for women, including: (i) the introduction of intermediate technology tools and implements; (ii) the establishment by DAES of a rural technology information unit to make appropriate technology information readily available and disseminate said information through the mass media; and (iii) the provision by DAES of training for local manufacturers, artisans and blacksmiths to improve their skills and products.

6. Strengthening MOFA's agricultural statistics services, including: (i) the establishment of an operational food and agriculture statistics system for (A) supporting policy formulation and decision making processes, planning and the carrying out of agricultural development programs, (B) monitoring and evaluating the impacts of policies and development programs, and (C) estimating the contribution of the agriculture sector to the Gross Domestic Product; (ii) development by the Statistics, Research and Information Department (SIRD) of an agricultural surveys and reporting system that includes a Multi-round Annual Commodities Survey Program, and an agricultural sector structural survey; (iii) the revision of the existing monthly crop monitoring and reporting system to provide quantitative as well as qualitative information; (iv) the carrying out of a comprehensive agricultural sector survey to provide up to date information on the basic profile of the agricultural sector; (v) the design of a national food and agriculture statistics database; (vi) the carrying out of data analysis and special studies as well as other analytical studies

out of data analysis and special studies as well as other analytical studies identified by PPMED and other directorates of MOFA; (vii) the development of a suitable national early warning and food information system to enable MOFA to deal with any natural calamities that may arise; and (viii) the strengthening of market information and intelligence services, including the development of an agricultural market information service to provide comprehensive and timely price information to producers, traders and exporters.

7. (a) Restructuring and strengthening of PPMED, including: (i) provision of in-service training in policy analysis, program planning, monitoring and evaluation; (ii) the strengthening of the staffing resources of PPMED, including (A) the recruitment and assignment of additional staff to PPMED, (B) the provision of short and long term technical advisory services, and (C) the contracting out of some of PPMED's work to the specialized economic institutions in the country.

(b) The operation and maintenance by PPMED of a monitoring and evaluation system to (A) provide information to program planners, managers and policy makers, (B) facilitate the tracking and assessment of performance, and (C) assist in the evaluation of the impact of policy and development interventions.

Part C: Development of Farmer-Based Organizations

1. (a) Establishment at grass-root levels of farmer-based organizations (FBOs), including: (i) the development of policies and legal framework that will sustain the FBOs and NGOs; (ii) the strengthening of the capacity of agencies responsible for or assisting in the promotion and development of FBOs; and (iii) the purchase of vehicles to facilitate the mobility of said agencies.

(b) The establishment of a Farmer-Based Organizations Development Fund to: (i) spur the development of FBOs; and (ii) provide matching grants for subprojects such as: (A) innovative proposals for economic activities of the FBOs; (B) rehabilitation of FBO facilities; (C) vertical integration of FBOs and development of services for the needs of FBOs; and (D) upgrading of the human capacity in the FBOs.

2. (a) The preparation by DOC of proposals for: (i) a draft cooperative policy document to be issued by the Borrower; (ii) a revision of the regulatory framework for cooperatives; and (iii) the revision of the draft law relating to cooperative societies.

(b) The carrying out of a study into the future role of the GCC as an apex organization for FBOs; training of staff of GCC; and the setting up by GCC of an audit unit to take over the functions of DOC relating to the auditing of the accounts of cooperative societies.

(c) The conduct of a publicity campaign to provide a forum for discussions of: (i) the draft proposals for the revision of the laws relating to the cooperative societies and the Borrower's policies relating thereto; and (ii) the proposed draft law relating to NGOs.

3. Strengthening the capabilities of the Ministry of Employment and Social Welfare (MESW) to carry out its functions, including: (i) MESW's functions relating to (A) the formulation of policies for the registration and operation of NGOs, and (B) the establishment of a reliable computerized database on NGOs; (ii) the training of staff of MESW on (A) the objectives and activities of NGOs, and (B) the Borrower's policies and regulations on NGOs; and (iii) the carrying out of research and studies on the impact and effectiveness of NGOs' operations in the Borrower's territory.

4. (a) The carrying out by GCC in collaboration with NGOs of an education program for members of the FBOs, including: (i) the preparation, in collaboration with stakeholders, of a national education and training plan for FBOs which will initially be carried out in two selected regions of the country; (ii) the provision of technical advisory services to assist in the preparation of said plan.

(b) Upgrading of the Ghana Cooperative College and transforming it into a College of Farmer-Based Organizations, including: (i) expansion of the role of the College to include other formalized training for group-based organizations beside cooperative societies; (ii) the preparation (A) with the support of ILO, of a

strategic plan for complementary institutional arrangements and the making of improvements to the College, and (B) of a strategic plan for the development of the said College into an autonomous and sustainable private sector training institute for cooperatives and FBOs; (iii) the provision of training equipment and other logistical support for the upgrading of the College's training program; and (iv) a limited expansion of the College's physical structure in conformity with the demands of its restructuring plan.

5. The carrying out of a program to familiarize members, officials and policymakers of the Cooperative movement in Ghana with the experiences garnered by the international cooperative community, including: (i) cooperative legislation and development; (ii) cost effective cooperative education and training; (iii) marketing systems; (iv) agricultural extension methodology; and (v) micro-finance institutions in developing countries and participation in international micro-finance training.

6. The carrying out of a program to draw attention to gender issues in the development of FBOs, including the initiation and carrying out of measures to: (i) close the gender gap particularly in the rural areas; and (ii) compel proper consideration of gender issues in the preparation and carrying out of the development programs of the FBOs.

Part C: Strengthening Agricultural Education and Training

1. The strengthening of the capacity of agricultural training colleges and farm institutes to produce the middle level human resources and skills required for the sustained development of the agriculture sector through: (i) a review of Ghana's agricultural education strategy and the revision of the curricula of the colleges and the institutes to meet the skill needs of the private sector; (ii) the inclusion of the private sector, FBOs and NGOs on the boards of the said colleges and institutes; (iii) the recruitment of new teaching staff and upgrading skills of existing teaching staff; and (iv) rehabilitation of the infrastructure, transport and equipment of the colleges.

2. The strengthening of MOFA's Human Resources Development Directorate, including the provision to the said Directorate of training, transport and office equipment.

3. (a) The introduction of a new curriculum for diploma level courses at the Kwadaso Agricultural College.

(b) The revision of the curricula of five other agricultural colleges to meet the skill demands of the private sector; and the carrying out of a skill demand study to assist with the design of the revised curricula.

(c) The provision of text and reference books, visual aids and equipment for the Program.

* * *

The Project is expected to be completed by May 31, 2003.

SCHEDULE 3

Procurement and Consultants' Services

Section I. Procurement of Good and Works

Part A: General

1. Goods and works shall be procured in accordance with (a) the provisions of Section I of the "Guidelines for Procurement under IBRD Loans and IDA Credits" published by the Bank in January 1995 and revised in January and August 1996, September 1997 and January 1999 (the Guidelines), and (b) the provisions of the following Parts of this Section I.

2. In paragraphs 1.6 and 1.8 of the Guidelines, the references to "Bank member countries" and "member country" shall be deemed to be references, respectively, to "Participating Countries" and "Participating Country".

Part B: International Competitive Bidding

1. Except as otherwise provided in Part C of this Section, goods and works shall be procured under contracts awarded in accordance with the provisions of Section II of the Guidelines and paragraph 5 of Appendix 1 thereto.

2. The following provisions shall apply to goods and works to be procured under contracts awarded in accordance with the provisions of paragraph 1 of this Part B.

(a) Grouping of contracts

To the extent practicable, contracts for goods shall be grouped in bid packages estimated to cost \$200,000 equivalent or more each, and contracts for civil works shall be grouped in bid packages estimated to cost \$1,000,000 equivalent or more each.

(b) Preference for domestically manufactured goods and domestic contractors

The provisions of paragraphs 2.54 and 2.55 of the Guidelines and Appendix 2 thereto shall apply to goods manufactured in the territory of the Borrower and works to be carried out by domestic contractors.

(c) Notification and Advertising

The invitation to prequalify or bid for each contract estimated to cost \$10,000,000 equivalent or more shall be advertised in accordance with the procedures applicable to large contracts under paragraph 2.8 of the Guidelines.

Part C: Other Procurement Procedures

1. National Competitive Bidding

Works estimated to cost less than \$1,000,000 equivalent per contract, up to an aggregate amount not to exceed \$3,800,000 equivalent, and goods estimated to cost less than \$200,000 equivalent per contract, up to an aggregate amount not to exceed \$1,900,000 equivalent may be procured under contracts awarded in accordance with the provisions of paragraphs 3.3 and 3.4 of the Guidelines.

2. International or National Shopping

Goods estimated to cost less than \$30,000 equivalent per contract, up to an aggregate amount not to exceed \$1,900,000 equivalent, may be procured under contracts awarded on the basis of international or national shopping procedures in accordance with the provisions of paragraphs 3.5 and 3.6 of the Guidelines.

3. Direct Contracting

Goods which should be procured as an extension of an existing contract purchased from the original supplier to be compatible with existing equipment and costing \$100,000 equivalent or less in the aggregate, may, with the Association's prior agreement, be procured in accordance with the provisions of paragraph 3.7 of the Guidelines.

4. Procurement from UN Agencies

Goods of scientific nature and specialized equipment but not exceeding an aggregate amount of \$500,000 may be procured from UNIPAC or IAPSO accordance with the provisions of paragraph 3.9 of the Guidelines.

5. Community Participation

Goods and works required for subprojects shall be procured in accordance with procedures acceptable to the Association.

6. Procurement of Small Works

Works estimated to cost less than \$50,000 equivalent per contract, up to an aggregate amount not to exceed \$1,900,000 equivalent, may be procured under lump-sum, fixed-price contracts awarded on the basis of quotations obtained from three (3) qualified domestic contractors in response to a written invitation. The invitation shall include a detailed description of the works, including basic specifications, the required completion date, a basic form of agreement acceptable to the Association, and relevant drawings, where applicable. The award shall be made to the contractor who offers the lowest price quotation for the required work, and who has the experience and resources to complete the contract successfully.

Part D: Review by the Association of Procurement Decisions

1. Procurement Planning

Prior to the issuance of any invitations to bid for contracts, the proposed procurement plan for the Project shall be furnished to the Association for its review and approval, in accordance with the provisions of paragraph 1 of Appendix 1 to the Guidelines. Procurement of all goods and works shall be undertaken in accordance with such procurement plan as shall have been approved by the Association, and with the provisions of said paragraph 1.

2. Prior Review

With respect to each contract for goods estimated to cost the equivalent of \$200,000 or more, and each contract for works estimated to cost the equivalent of \$250,000 or more the procedures set forth in paragraphs 2 and 3 of Appendix 1 to the Guidelines shall apply.

3. Post Review

With respect to each contract not governed by paragraph 2 of this Part, the procedures set forth in paragraph 4 of Appendix 1 to the Guidelines shall apply.

Section II. Employment of Consultants

Part A: General

1. Consultants' services shall be procured in accordance with the provisions of the Introduction and Section IV of the "Guidelines: Selection and Employment of Consultants by World Bank Borrowers" published by the Association in January 1997 and revised in September 1997 and January 1999, subject to the modifications thereto set forth in paragraph 2 of this Part A (the Consultant Guidelines), and (b) the provisions of the following Parts of this Section II.

2. In paragraph 1.10 of the Consultant Guidelines, the references to "Bank member countries" and "member country" shall be deemed to be references, respectively, to "Participating Countries" and "Participating Country".

Part B: Quality- and Cost-based Selection

1. Except as otherwise provided in Part C of this Section, consultants' services shall be procured under contracts awarded in accordance with the provisions of Section II of the Consultant Guidelines, paragraph 3 of Appendix 1 thereto, Appendix 2 thereto, and the provisions of paragraphs 3.13 through 3.18 thereof applicable to quality- and cost-based selection of consultants.

2. The following provisions shall apply to consultants' services to be procured under contracts awarded in accordance with the provisions of the preceding paragraph. The short list of consultants for services estimated to cost less than \$200,000 equivalent per contract, may comprise entirely national consultants in accordance with the provisions of paragraph 2.7 of the Consultant Guidelines.

Part C: Other Procedures for the Selection of Consultants

1. Least-cost Selection

Services for auditing and works engineering services may be procured under contracts awarded in accordance with the provisions of paragraphs 3.1 and 3.6 of the Consultant Guidelines.

2. Selection Based on Consultants' Qualifications

Services for lectures and the carrying out of studies estimated to cost less than \$30,000 equivalent per contract may be procured under contracts awarded in accordance with the provisions of paragraphs 3.1 and 3.7 of the Consultant Guidelines.

3. Individual Consultants

Services for tasks that meet the requirements set forth in paragraph 5.1 of the Consultant Guidelines shall be procured under contracts awarded to individual consultants in accordance with the provisions of paragraphs 5.1 through 5.3 of the Consultant Guidelines.

Part D: Review by the Association of the Selection of Consultants

1. Selection Planning

Prior to the issuance to consultants of any requests for proposals, the proposed plan for the selection of consultants under the Project shall be furnished to the Association for its review and approval, in accordance with the provisions of paragraph 1 of Appendix 1 to the Consultant Guidelines. Selection of all consultants' services shall be undertaken in accordance with such selection plan as shall have been approved by the Association, and with the provisions of said paragraph 1.

2. Prior Review

(a) With respect to each contract for the employment of consulting firms estimated to cost the equivalent of \$200,000 or more, the procedures set forth in paragraphs 1, 2 (other than the third subparagraph of paragraph 2(a)) and 5 of Appendix 1 to the Consultant Guidelines shall apply.

(b) With respect to each contract for the employment of consulting firms estimated to cost the equivalent of \$100,000 or more, and each contract for the employment of individual consultants estimated to cost the equivalent of \$50,000 or more, the procedures set forth in paragraphs 1, 2 (other than the second subparagraph of paragraph 2(a)) and 5 of Appendix 1 to the Consultant Guidelines shall apply.

(c) The procedures set forth in paragraphs 1, 2 (other than the third subparagraph of paragraph 2(a)) and 5 of Appendix 1 to the Consultant Guidelines shall apply with respect to:

- (i) each contract for the employment of (A) consulting firms estimated to cost the equivalent of \$100,000 or more, and (B) individual consultants estimated to cost the equivalent of \$50,000 or more;
- (ii) the following matters relating to the procurement of consultant services, namely: (A) the terms of reference of all consultants' services contracts, (B) the short list or lists of consultants, (C) budgets, selection procedures and criteria, and (D) letters of

invitation and evaluation reports;

- (iii) consulting assignments of a critical nature, as reasonably determined by the Association; and
- (iv) amendments of contracts raising the total contract value to (A) \$100,000 equivalent for consulting firms, and (B) \$50,000 equivalent.

(d) With respect to each contract for the employment of individual consultants estimated to cost the equivalent of \$50,000 or more, the qualifications, experience, terms of reference and terms of employment of the consultants shall be furnished to the Association for its prior review and approval. The contract shall be awarded only after the said approval shall have been given.

3. Post Review

With respect to each contract not governed by paragraph 2 of this Part, the procedures set forth in paragraph 4 of Appendix 1 to the Consultant Guidelines shall apply.

SCHEDULE 4

Implementation Program

1. (a) The Borrower shall prepare and furnish to the Association a Project Implementation Manual in form and substance satisfactory to the Association setting out details of all procedures, guidelines, timetables and criteria required for the Project.

(b) The Borrower shall carry out the Project in accordance with the Project Implementation Manual and, except as the Association shall otherwise agree, the Borrower shall not amend or waive any provision of the Project Implementation Manual if, in the opinion of the Association, such amendment or waiver may materially and adversely affect the carrying out of the Project or the achievement of the objectives thereof.

2. The Borrower shall:

(a) maintain policies and procedures adequate to enable it to monitor and evaluate on an ongoing basis, in accordance with the indicators set forth in Schedule 6 to this Agreement, the carrying out of the Project and the achievement of the objectives thereof;

(b) prepare, under terms of reference satisfactory to the Association, and furnish to the Association, on or about March 31 and September 30 of each year, a report integrating the results of the monitoring and evaluation activities performed pursuant to paragraph (a) of this Section, on the progress achieved in the carrying out of the Project during the period preceding the date of said report and setting out the measures recommended to ensure the efficient carrying out of the Project and the achievement of the objectives thereof during the period following such date; and

(c) review with the Association, by April 30 and October 31, or such later date as the Association shall request, the report referred to in paragraph (b) of this Section, and, thereafter, take all measures required to ensure the efficient completion of the Project and the achievement of the objectives thereof, based on the conclusions and recommendations of the said report and the Association's views on the matter. The first such exchange of views shall take place no later than six months after the Effective Date.

(d) The progress report referred to in paragraph (b) of this Schedule shall cover, amongst other things:

- (i) progress achieved in the carrying out of the Project in the

previous 6 months;

- (ii) analysis of the reasons for not achieving the targets and plans for improving performance accordingly;
- (iii) targets and activities to be carried out in the coming six months, including work, training and procurement plans;
- (iv) administration and financial operation of the Project;
- (v) operating costs; and
- (vi) the results of the most recent external audits of a representative sample of Subprojects, a review of procurement, a description of monitoring activities of the quality and timeliness of the carrying out of Subprojects and a summary of the impact of the most recent Subprojects.

2. Midterm Review

No later than eighteen (18) months after the Effective Date, the Borrower shall carry out, jointly with the Association, a midterm review of the progress made in carrying out the Project (the Midterm Review). The Midterm Review shall cover among other things:

- (i) an assessment of (A) work programs prepared as of the date of the Midterm Review and the progress made in carrying out the said programs, (B) training provided under the Project, (C) procurement under the Project, (D) the extent to which the indicators set out in Schedule 6 to this Agreement have been carried out, and (E) plans made or proposed for updating said indicators; and
- (ii) a review of the state of maintenance of the infrastructure rehabilitated and constructed under the Project.

3. The Borrower shall:

- (a) no later than July 31, 2000 establish in a form and with functions, staffing and resources satisfactory to the Association the Agricultural Research Policy Committee referred to in Part A.1 (c) of the Project;
- (b) no later than September 1, 2000 establish, in a form and with functions, staffing and resources satisfactory to the Association, a board for the management of the Agricultural Research Grant Scheme included in Part A.1 (b) of the Project, which shall be composed of three representatives of the agricultural research institutes participating in the Project and one representative each of the AFFSD and MOFA and two representatives of CSIR;
- (c) no later than the end of the second Project Year, through CSIR, prepare a study satisfactory to the Association on the rationalization of the management and operations of the research institutes and research stations managed under the national agricultural research system;
- (d) no later than March 31, 2001, prepare and furnish an agricultural extension policy document satisfactory to the Association which, inter alia, outlines: (i) the proposed plans for the development of extension services in the Borrower's territory over the next ten years; and (ii) the results of consultations held among representatives of farmers' organizations, NGOs, members of the academic and research community and agribusiness and other stakeholders in agricultural research development;
- (e) no later than August 31, 2000 prepare and furnish a draft manual, satisfactory to the Association, for the management of the Agricultural Extension Development Fund, setting out: (A) the terms of reference and composition of the Board

of Trustees to manage the said Fund; (B) the criteria for eligibility of applicants for Grants and for the award of contracts under the said Fund; (C) the procedures for the withdrawal of moneys from the Fund's account and the disbursement of said funds to contractors; and (D) the monitoring and evaluation of contractors' performance; and

(f) no later than September 30, 2000 appoint a Board of Trustees satisfactory to the Association to manage the Agricultural Extension Development Fund.

4. (a) The Borrower shall, no later than September 30, 2000, furnish to the Association a memorandum of understanding, satisfactory to the Association, between the MESW, GCC and the Borrower's Ministry of Finance setting out: (i) GCC's program for (A) the joint promotion of grass roots FBOs, and (B) providing audit services under the Project; (ii) the terms and conditions under which funds will be made available to GCC under the Project; and (iii) the procedures for the monitoring and evaluation of GCC's performance under the Project.

(b) The Borrower shall, no later than December 31, 2000, prepare, with the assistance of the International Labor Organization, and furnish to the Association, a business plan acceptable to the Association for the operation and management of GCC.

(c) The Borrower shall, no later than December 31, 2000, prepare a plan of action satisfactory to the Association for improving, on a sustainable basis, the financial condition and management of the Cooperative College.

(d) (i) The Borrower shall, no later than August 31, 2000, prepare a manual, in form and substance satisfactory to the Association, for the management of the FBO Development Fund setting out: (i) the terms of reference and composition of the Board of Trustees of the said Fund; (ii) the criteria for (A) determining the eligibility of applicants for Grants, and (B) award of the Grants; (iii) the procedures for the withdrawal of funds from the account of the FBO Development Fund (which shall be opened in a commercial bank); (iv) the procedures for the disbursement of proceeds of the Grant to Beneficiaries; and (v) the monitoring and evaluation of the performance of the Beneficiary under the Project.

(ii) The composition of the said Board of Trustees shall be satisfactory to the Association and the Board shall be established no later than September 30, 2000.

(e) The Borrower shall through competitive bidding procedures satisfactory to the Association select an entity acceptable to the Association, including an NGO, to serve as the Secretariat of the FBO Development Fund. The said Secretariat shall be responsible for: (i) the processing of funding proposals in accordance with the procedures and criteria set out in the Project Implementation Manual; (ii) carrying out decisions of the Board of Trustees; and (iii) monitoring the performance of Beneficiaries in receipt of Grants.

5. The Borrower shall: (i) carry out a study, under the auspices of the entity or NGO selected pursuant to the provisions of paragraph 4 above, into the characteristics and performance of FBOs; and (ii) prepare a plan of action, satisfactory to the Association, for the further development of FBOs.

6. The Borrower shall no later than March 31, 2001 designate a group of commodity specialists in MOFA, acceptable to the Association, to be responsible for the development of the whole spectrum of activities in food and fiber production and marketing, including input supply, farm production, on-farm and off-farm storage, processing, marketing and exports.

7. The Borrower shall no later than October 31, 2000, through MOFA, prepare a work program and budget satisfactory to the Association for 2001, 2002 and 2003 for the five MOFA agricultural stations at Kpeve (Volta Region), Asuansi (Central Region), Mampong (Ashanti Region), Wenchi (Brong-Ahafo Region), and Babile (Upper West Region) by October 31, 2000. The said program shall be reviewed by the consultants engaged to assist in the restructuring of MOFA.

8. The Borrower shall, no later than March 31, 2001, transfer the pilot milk collection, processing and marketing activities carried out at its Amrahia farm to private sector farming operators, under arrangements and on terms and conditions satisfactory to the Association including conditions requiring the farm to be: (i) operated on a financially sound and self supporting basis; and (ii) used only for breeding dairy cattle and training farmers and extension personnel.

9. The Borrower shall, no later than December 31, 2003: (i) provide for the formation of livestock breeders' associations by the end of the first Project Year; and (ii) transfer to the said associations under arrangements and terms and conditions satisfactory to the Association including the provision of technical support by APD to the associations, the operation of APD's open-nucleus breeding scheme.

10. The Borrower shall, no later than December 31, 2000, complete studies satisfactory to the Association on the socio-economic characterization of livestock producers and cryo-preservation of West African Shorthorn cattle.

11. (a) The Borrower shall, no later than March 31, 2001, prepare and furnish to the Association district extension plans satisfactory to the Association for the replication and introduction of tsetse control activities with the active participation of the communities to be affected by said plans.

(b) The Borrower shall, no later than June 30, 2001, take all necessary action, including (as the case may require) appropriate revision of the relevant regulations, to facilitate private veterinary practice.

(c) The Borrower shall, no later than December 31, 2000, prepare and furnish to the Association, the terms of reference of a plan of action for the privatization of veterinary services in one pilot district.

12. The Borrower shall take all necessary action to expedite the processing of the draft legislation relating to its Fisheries bill.

13. The Borrower shall enter into a memorandum of understanding satisfactory to the Association with at least one of the following institutions, namely the Institute of Statistical and Social Economic Research (ISSER), the Center of Economic Analysis (CEPA) and the relevant University Faculties for the carrying out of: (i) statistical analysis for the Research, Statistics, and Information Directorate; and (ii) Beneficiary assessment and impact evaluations for PPMEB.

14. The Borrower shall enter into an agreement satisfactory to the Association with each Beneficiary carrying out a Subproject. The terms and conditions of each Grant Agreement shall inter alia provide that:

(a) the Beneficiary: (i) carries out the Subproject with due diligence and efficiency and in accordance with sound technical, financial, environmental and managerial standards; and (ii) maintains adequate records to reflect, in accordance with sound accounting practices, the operations, resources and expenditures relating to the Subproject;

(b) the goods, works and services to be financed from the proceeds of the Grant shall: (i) be procured in accordance with procedures ensuring efficiency and economy and in accordance with the provisions of Schedule 3 to this Agreement; and (ii) be used exclusively in the carrying out of the Subproject; and

(c) the Borrower reserves the right to:

(i) inspect by itself, or jointly with the Association, if the Association shall so request, the goods, works, sites, plants and construction included in the Subproject, the operations thereof and any relevant records and documents;

(ii) obtain all information as the Borrower or the Association shall reasonably request regarding the administration, operation and

financial conditions of the Beneficiary; and

- (iii) suspend or terminate the right of the Beneficiary to the use of the proceeds of the Grant upon the failure by the Beneficiary to perform any of its obligations under the Grant.

15. Environment:

(a) MOFA shall develop a strategy to incorporate environmental considerations into the design and carrying out of its agricultural development programs at all levels.

(b) MOFA shall designate an Environmental Liaison Officer to assure that proper consideration is given to environmental issues in MOFA's operations. The said officer shall liaise with the Environment Protection Agency (EPA) on environmental aspects of MOFA's activities.

(c) MOFA shall:

- (i) develop, in collaboration with EPA, environmental guidelines or simple environmental manuals in specific areas such as aquaculture, livestock, introduction of exotic species, agro-chemical use, integrated pest management, agro-forestry and irrigation to guide field officers, especially at the district level;
- (ii) emphasize the environmental aspects of agricultural programs and activities in the training of agricultural officers and the provision of extension messages;
- (iii) develop model sustainable land use systems, based on land use capability, for different ecological zones;
- (iv) equip PPRSD and EPA's Chemicals Control and Management Center with the resources and facilities to train extension officers on the safe use of agro-chemicals and on adherence to the Borrower's Pesticide Control and Management Act of 1996; and
- (v) prepare an environmental assessment report, satisfactory to the Association for the community-based tsetse control and the aquaculture development programs.

16. The Borrower shall through the Research, Statistics and Information Directorate of MOFA and in collaboration with the Meteorological Service set up and thereafter maintain an early warning information system to make advance information available about anticipated effects of droughts and other natural hazards such as floods, fire, and outbreaks of plant and animal diseases (based on the GIS data base developed for the Borrower based on land capability under the Bank assisted Environmental Resource Management Project Credit No. 2426-GH).

SCHEDULE 5

Special Accounts

1. For the purposes of this Schedule:

(a) the term "eligible Categories" means Categories (1) through (5) set forth in the table in paragraph 1 of Schedule 1 to this Agreement;

(b) the term "eligible expenditures" means expenditures in respect of the reasonable cost of goods and services required for the Project and to be financed out of the proceeds of the Credit allocated from time to time to the eligible Categories

in accordance with the provisions of Schedule 1 to this Agreement; and

(c) the term "Authorized Allocation" means with respect to: (i) the FOMA Special Account, an amount equivalent to \$2,000,000 to be withdrawn from the Credit Account and deposited into the MOFA Special Account pursuant to paragraph 3(a) of this Schedule; and (ii) the CSIR Special Account, an amount equivalent to \$1,000,000 to be withdrawn from the Credit Account and deposited into the CSIR Special Account pursuant to said paragraph 3(a), provided, however, that unless the Association shall otherwise agree, the Authorized Allocation shall be limited (A) in the case of the MOFA Special Account to an amount equivalent to \$1,000,000 until the aggregate amount of withdrawals from the Credit Account plus the total amount of all outstanding special commitments entered into by the Association pursuant to Section 5.02 of the General Conditions shall be equal to or exceed the equivalent of SDR5,000,000, and (B) in the case of the CSIR Special Account to an amount equivalent to \$500,000 until the aggregate amount of withdrawals from the Credit Account plus the total amount of all outstanding special commitments entered into by the Association pursuant to said Section 5.02 shall be equal to or exceed the equivalent of SDR5,000,000.

2. Payments out of a Special Account shall be made exclusively for eligible expenditures in accordance with the provisions of this Schedule.

3. After the Association has received evidence satisfactory to it that a Special Account has been duly opened, withdrawals of the Authorized Allocation and subsequent withdrawals to replenish the Special Account shall be made as follows:

(a) For withdrawals of the Authorized Allocation, the Borrower shall furnish to the Association a request or requests for deposit into the Special Account of an amount or amounts which do not exceed the aggregate amount of the Authorized Allocation. On the basis of such request or requests, the Association shall, on behalf of the Borrower, withdraw from the Credit Account and deposit into the Special Account such amount or amounts as the Borrower shall have requested.

(b) (i) For replenishment of a Special Account, the Borrower shall furnish to the Association requests for deposits into the Special Account at such intervals as the Association shall specify.

(ii) Prior to or at the time of each such request, the Borrower shall furnish to the Association the documents and other evidence required pursuant to paragraph 4 of this Schedule for the payment or payments in respect of which replenishment is requested. On the basis of each such request, the Association shall, on behalf of the Borrower, withdraw from the Credit Account and deposit into the Special Account such amount as the Borrower shall have requested and as shall have been shown by said documents and other evidence to have been paid out of the Special Account for eligible expenditures.

All such deposits shall be withdrawn by the Association from the Credit Account under the respective eligible Categories, and in the respective equivalent amounts, as shall have been justified by said documents and other evidence.

4. For each payment made by the Borrower out of a Special Account, the Borrower shall, at such time as the Association shall reasonably request, furnish to the Association such documents and other evidence showing that such payment was made exclusively for eligible expenditures.

5. Notwithstanding the provisions of paragraph 3 of this Schedule, the Association shall not be required to make further deposits into a Special Account:

(a) if, at any time, the Association shall have determined that all further withdrawals should be made by the Borrower directly from the Credit Account in accordance with the provisions of Article V of the General Conditions and paragraph (a) of Section 2.02 of this Agreement;

(b) if the Borrower shall have failed to furnish to the Association, within the period of time specified in Section 4.01 (b) (ii) of this Agreement, any of the

audit reports required to be furnished to the Association pursuant to said Section in respect of the audit of the records and accounts for the Special Account;

(c) if, at any time, the Association shall have notified the Borrower of its intention to suspend in whole or in part the right of the Borrower to make withdrawals from the Credit Account pursuant to the provisions of Section 6.02 of the General Conditions; or

(d) once the total unwithdrawn amount of the Credit allocated to the eligible Categories, minus the total amount of all outstanding special commitments entered into by the Association pursuant to Section 5.02 of the General Conditions with respect to the Project, shall equal the equivalent of twice the amount of the Authorized Allocation.

Thereafter, withdrawal from the Credit Account of the remaining unwithdrawn amount of the Credit allocated to the eligible Categories shall follow such procedures as the Association shall specify by notice to the Borrower. Such further withdrawals shall be made only after and to the extent that the Association shall have been satisfied that all such amounts remaining on deposit in the Special Account as of the date of such notice will be utilized in making payments for eligible expenditures.

6. (a) If the Association shall have determined at any time that any payment out of the Special Account: (i) was made for an expenditure or in an amount not eligible pursuant to paragraph 2 of this Schedule; or (ii) was not justified by the evidence furnished to the Association, the Borrower shall, promptly upon notice from the Association: (A) provide such additional evidence as the Association may request; or (B) deposit into the Special Account (or, if the Association shall so request, refund to the Association) an amount equal to the amount of such payment or the portion thereof not so eligible or justified. Unless the Association shall otherwise agree, no further deposit by the Association into the Special Account shall be made until the Borrower has provided such evidence or made such deposit or refund, as the case may be.

(b) If the Association shall have determined at any time that any amount outstanding in the Special Account will not be required to cover further payments for eligible expenditures, the Borrower shall, promptly upon notice from the Association, refund to the Association such outstanding amount.

(c) The Borrower may, upon notice to the Association, refund to the Association all or any portion of the funds on deposit in the Special Account.

(d) Refunds to the Association made pursuant to paragraphs 6 (a), (b) and (c) of this Schedule shall be credited to the Credit Account for subsequent withdrawal or for cancellation in accordance with the relevant provisions of this Agreement, including the General Conditions.

SCHEDULE 6

Performance Indicators

The performance indicators to be met by the end of the last Project Year shall include the following:

A. Sector Indicators:

Annual GDP growth:

- (a) Annual increase in household income.
- (b) Improvement in core welfare indicators.

B. End-of-Program Indicators:

1. Approval of each annual work plan and budget linked to the Medium-Term Expenditure Framework and the achievements of outputs and targets of the previous Project Year.

2. Financing of subsequent phases of the Program triggered by the achievement of milestones and gradual assumption by the Borrower of full responsibility for recurrent

costs by the end of the third Project Year.

C. Outcome/Impact Indicators

1. (a) Increased rural household incomes.

(b) Increased value of agricultural production.

(c) Reduced cost of production.

(d) Improve irrigation water use efficiency.

(e) Reduced rate of land and forest degradation.

2. Agricultural Research

(a) The competitive agricultural research grant scheme is operating effectively and 75% of ongoing Subprojects have satisfactory rating.

(b) Farmers' representatives and other research clientele are participating in priority setting of adaptive research.

(c) At least 60 priority research Subprojects have been completed with 75% satisfactory rating from a scientific and clientele point of view.

(d) Private sector and other stakeholders are cofinancing at least 15% of adaptive research on commercial crops and livestock.

(e) Strategic action plan for rationalizing the main research institutes of the NARS prepared.

(f) Number of new varieties released and number of new cultural or husbandry practices passed on to extension.

3. Agricultural Extension

(a) The Agricultural Extension Development Fund has been established and is operating effectively and 75% of ongoing contracts have received satisfactory rating.

(b) Agricultural services have effectively been decentralized to the regions and districts and district assemblies and farmers' representatives are participating in extension program design and management.

(c) 20,000 farmers are participating in on-farm adaptive trials.

(d) 300,000 farmers reached, of which number at least 20% are female.

(e) 120,000 farmers are adopting new technologies.

(f) The numbers of female extension agents have increased

(g) Production of improved planting materials increased by 40%.

(h) Post-harvest losses reduced by 10%.

(i) IPM adopted and pesticide use reduced in relevant crops.

(j) Overall increase in farm productivity of 29% achieved.

4. (a) 110 district annual agricultural services and development plans produced and carried out.

(b) Restructuring of MOFA carried out by December 31, 2002.

(c) Veterinary legislation revised and enacted.

(d) Privatization of animal health services expanded and total privatization piloted in at least one district.

(e) Revised Fisheries Bill enacted.

(f) Contracts entered into by private sector and civil society to co-produce statistical analysis and Program impact evaluation.

(g) Reliable agricultural statistical data collected, analyzed and disseminated every year.

(h) Revised Cooperative Bill and NGO Bill presented to Parliament.

(i) Board of Trustees for managing the FBO Development Fund appointed.

(j) An entity or NGO appointed by competitive bidding procedures to serve as secretariat of the Board of Trustees of the FBO Development Fund.

(k) Subprojects undertaken by the FBOs show a 75% satisfactory rating.

(l) GCC and other apex FBO movements strengthened.

(m) Auditing services of cooperatives societies undertaken by GCC in at least two pilot regions and plans to expand said services into the remaining regions completed by June 30, 2002.

5. (a) Agricultural education policy reviewed by December 31, 2001.

(b) Curricula of agricultural colleges and farm institutes revised and improved to cater to the needs of the private sector.

(c) Infrastructure of agricultural colleges and farm institutes rehabilitated.

(d) Female intake into agricultural colleges increased by 30%.

(e) 8 regions prepared for Program activities by June 30, 2002.

