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CIAT

 Centro Internacional de Agricultura Tropical
 International Center for Tropical Agriculture

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 Fax: (57-2)445-0073 (directo), (1-650)833-6626 (via USA)
 Correo electrónico: ciat@cgiar.org
 Internet: www.ciat.cgiar.org

Apartado Aéreo 6713, Cali, Colombia

 GM-363-08
 June 18, 2008

Dr. A.P. Sharma
 Vice-Chancellor
 Dept. of Genetics and Plant Breeding
 G.B.Pant University of Agriculture and Technology
 Telephone: 91-9411324821
 Uttarakhand, India
vc@gbpuat.ernet.in

Dear Dr. Sharma,

We are pleased to forward one original copy duly signed of the Agreement # 6018.

Should you require anything further, feel free to contact us.

Sincerely yours,

Kathryn B. Laing
 Coordinator,
 Grants Management

- Comptroller
 - Director Research
 - Tech. cell
 - Dr. M.C. Pant
 - Dr. S. S. Pant
 - Joint Director SPAC

(A. P. SHARMA)
 Vice Chancellor

कुलपति कार्यालय
 पत्र सं. 5127
 दिनांक 20/6/08

कल
 20/6/08
 नियंत्रक

निदेशक कार्यालय
 पत्र सं. 730
 दिनांक 30/6/08

HarvestPlus Challenge Program

Agreement # 6018-08

Letter of agreement (the "Agreement") between Centro Internacional de Agricultura Tropical ("CIAT") and the International Food Policy Research Institute ("IFPRI"), acting on behalf of the donors to the HarvestPlus Challenge Program, and G.B. Pant University of Agriculture and Technology (GBPUA&T the "Collaborator"), for a grant in the amount of USD 30,000 (the "Grant") as provided by various donors to support the project – Harvest Plus Challenge Program (the "Challenge Program"). CIAT, IFPRI and the Collaborator are hereinafter referred to as "the parties."

I. Purpose of the Grant

The purpose of the Grant is to assist the Collaborator in financing the implementation of its research activities under the Challenge Program as approved by the Program Advisory Committee ("PAC").

II Program of Work

CIAT and IFPRI hereby agree to provide funding to support, and GBPUA&T hereby agrees to perform the program of work set forth in the Statement of Work attached as Exhibit 1 (the "Project"). It is hereby agreed that the Principal Investigators for GBPUA&T shall be Y.V. Singh, M.C. Nautiyal and B.B. Singh for the term of the Project. GBPUA&T must obtain prior written approval from CIAT/IFPRI before using a different Principal Investigator. It is hereby agreed that the Project Manager for CIAT/IFPRI shall be Wolfgang Pfeiffer, or such other person as CIAT/IFPRI may designate from time to time by giving written notice to GBPUA&T.

III. Term

This Agreement will begin on January 1, 2008 and continue until December 31, 2008. It is understood that these dates are estimates and that CIAT/IFPRI may, at their convenience and upon written notice to the GBPUA&T, postpone, shorten or extend these dates. GBPUA&T must obtain written approval from CIAT/IFPRI for any extension of the term of the Agreement.

IV. Payment

The total payment to be made for work under this Agreement is USD 30,000, which will be met with funds drawn from the Challenge Program as approved by the PAC and CIAT/IFPRI. All payments shall be made in U.S. currency, upon receipt of invoices bearing the contract number and a brief description of work completed. It is hereby agreed that CIAT will be the Administrative Center of this current Agreement and will be responsible for disbursing of funds. The Agreement is subject to the availability of Grant Contributions to be made by the donors.

Payments shall be made according to the schedule set forth below; provided, however, that CIAT/IFPRI shall have the right to defer or withhold payment of any installment if the Project Manager determines that GBPUA&T has not made satisfactory progress toward the accomplishment of the program of work described on Exhibit 1:

USD 15,000 - upon receipt of signed Agreement.

USD 10,000 - upon receipt of the Progress Report and Financial Report

USD 5,000 – upon receipt of the Final Report and Final Financial Report

V. Use of Funds

GBPUA&T shall exercise care in the administration of the Grant having due regard to economy and efficiency and the need to uphold the highest standards of integrity in the administration of public funds. In the event that the Grant is not fully spent by the end of the term of the Agreement, GBPUA&T shall promptly return the unspent funds to IFPRI/CIAT or use such funds for such other purposes, as IFPRI/CIAT shall have agreed.

VI. Implementation

GBPUA&T shall: (a) carry out the Project with due diligence and efficiency; (b) promptly provide the funds, facilities, services and other resources required for the Project; (c) furnish all information covering the Project and the use of the Grant proceeds as IFPRI/CIAT, acting on behalf of donors to the HarvestPlus Challenge Program, may reasonably request; and (d) from time to time exchange views with IFPRI/CIAT representatives on the progress and results of the Project.

Without limitation on the foregoing, GBPUA&T shall prepare and furnish to IFPRI/CIAT promptly upon completion of the Project a report, in form and substance satisfactory to IFPRI/CIAT, on the results and outputs of the Project.

VII. Financial management, audits, and reporting

GBPUA&T shall maintain a financial management system, including records and accounts, in accordance with generally accepted accounting practices, in accordance with CGIAR Financial Guideline Series No. 1 (Financial Management). In addition, GBPUA&T shall prepare financial statements, which are in accordance with CGIAR Financial Guideline Series No. 2 (Accounting Policies and Reporting Practices Manual).

GBPUA&T shall: (a) have the records, accounts and financial statements referred to above externally audited; (b) furnish to CIAT/IFPRI, not later than three months after the year-end, a copy of its externally audited financial statements, together with the opinion of the external auditors on such statements. Such financial statements should indicate the receipt and use of Grant funds.

VIII. Reports

GBPUA&T shall report to CIAT/IFPRI, on behalf of the donors, on the implementation of its work on the Challenge Program.

IX. General Provisions

This Agreement includes the General Provisions attached as Exhibit 2, which are incorporated herein by reference.

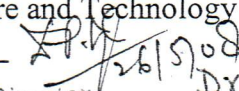
Please confirm your agreement to the foregoing on behalf of GBPUA&T by signing, dating, and returning to us the enclosed copy of this Agreement.

IN WITNESS WHEREOF, THE PARTIES HAVE SIGNED THIS AGREEMENT ON THE DATE AS INDICATED BELOW. THIS AGREEMENT WILL NOT BE EFFECTIVE UNTIL IT HAS BEEN SIGNED ON BEHALF OF CIAT AND IFPRI BY THE FINANCE DIRECTORS OF BOTH THOSE ORGANIZATIONS.

FOR
COLLABORATING
ORGANIZATION:

G.B. Pant University of Agriculture and Technology - GBPUA&T

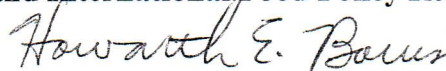
Dr. A.P. Sharma
Vice-Chancellor


Director
Directorate of Extension Station
G. B. Pant University of Agriculture and Tech.
Pantnagar - 26145 U S Nagar
(Uttarakhand)

Date:

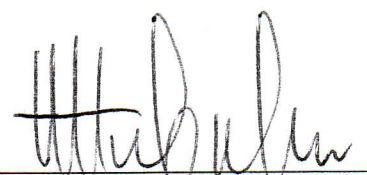
FOR:

**Centro Internacional de Agricultura Tropical (CIAT)
and International Food Policy Research Institute (IFPRI)**



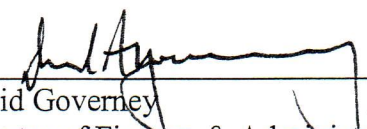
Howarth E. Bouis
Director
HarvestPlus Challenge Program

Date: 5/6/08


Albin Hubscher
Deputy Director of Corporate Services
CIAT

Date:

6/17/08


David Governey
Director of Finance & Administration
IFPRI

Date:

5/9/08

Exhibit 1
Statement of Work
Work Plan and Budget Details

I. General Information			
1. Total Contract Cost: \$ 30,000 USD		Start Date: January 1st, 2008	
Duration: One Year			
1.1 Research Activity Title			
Title:	Introduction of Improved '60-day' Cowpea Varieties as a Niche Crop in the Cereals-based Cropping Systems for Enhanced Food Security, Family Nutrition and Poverty Reduction in India		
2. Institutional Review Board (IRB) Requirement			
Institutional Review Board Required:		<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
IRB Approval Letters Submitted:		<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
3. Project Leader (Principal Investigator)			
Name: Drs. Y.V.Singh, M.C.Nautiyal and B.B.Singh			
Street/Address: Dept. of Genetics and Plant Breeding G.B.Pant University of Agriculture and Technology (GBPUA&T)		City: Pantnagar	
State/Country: Uttarakhand, India		Zip Code: 263145	
Tel: 91-9411324821-YVS 91-9412120767-MCN 91-9891517514-BBS	Fax: 91-5944-233473 Attn: Dr. Y.V.Singh/Dr. M.C.Nautiyal/ Dr. B.B.Singh	Email: drbbsingh@yahoo.com E-mail :dr.yvsingh@rediffmail.com E-mail :adbspc@yahoo.com	
4. Participating Institutions			
4.1 Leading Institution			
Name: G.B.Pant University of Agriculture and Technology (GBPUA&T)			
Street/Address: Dept. of Genetics and Plant Breeding G.B.Pant University of Agriculture and Technology (GBPUA&T)		City: Pantnagar	
State/Country: Uttarakhand, India		Zip Code: 263145	
Name of Signature Authority: Dr. A.P. Sharma			
Position: Vice-Chancellor		Email: vc@gbpuat.ernet.in	
Government Agency: (if any)			
5. Contributing Sub-Collaborators (if any sub-agreement is concluded)			
Name:			
Street/Address:		City:	
		Zip Code	
Name of Signature Authority:			

6. Finance Officer (responsible for financial reports)		
Name of Signature Authority : Norman Macdonald		
Street/Address: DAPO Box 7777		City : Metro Manila
State/Country: Philippines		Zip Code: 1301
Tel: (63-2) 580-5600 ext 2758	Fax: (63-2) 580-5699	E-mail: n.macdonald@cgiar.org
Name of Contact Person: (if other than Signature Authority)		
Tel:	Fax:	E-mail:

II. Specific Information
1. Synopsis of Research Activity and Expected Results
<p>India is predominantly a vegetarian country and therefore, bulk of the population depends upon grain legumes for dietary protein. However, the production of grain legumes in India is not keeping pace with the population growth and it has remained stagnant at about 12-14 million tons since 1950 causing declining per capita availability of food legumes and high cost of pulses. This is because bulk of the agriculture in India is based on the green revolution led 'wheat-rice' in and 'rice-rice' cropping systems and food legumes have been pushed to marginal lands with little application of fertilizers, chemicals and irrigation. This has led to the lack of adequate protein and minerals in the diets of rural and urban masses on one hand and imbalanced soil fertility due to cereal-cereal rotation on the other hand. In spite of the revolution in cereals production, India has over 250 million people who are undernourished and well below the poverty line. Therefore, increase in pulses production is essential for ensuring balanced human nutrition and soil fertility. How can this be achieved with the limited land is one of the major challenges of agricultural research in India. The only answer is to cultivate short duration food legumes in the existing niches between cereal-cereal systems. Wheat is harvested in March-April and rice is transplanted in July leaving about 80-90 days gap in which a short duration food legume can be grown. Recently, the International Institute of Tropical Agriculture (IITA) with the support from Harvest Plus Project of CGIAR has developed photo-insensitive and heat tolerant '60-day cowpea' varieties with yield potential ranging from 1.5 to 2.5 t/ha combining high protein, iron, zinc, calcium and potassium which offer an unique opportunity to increase cowpea production by planting these as a niche crop in cereals-based cropping systems. Some of these 60-day cowpea varieties were evaluated at G.B. Pant University of Agriculture & Technology after wheat harvest in 2004 and 2006. On the basis of their maturity and yield, 3 promising varieties were found very promising with an average grain yield of 1.5t/ha. However, further breeding and selection of new improved '60-day cowpeas' within the Indian environment can raise the yield potential over 2 – 2.5t/ha. These findings are of extra-ordinary significance not only for sustainable and intensive agriculture in northern India but also to alleviate protein micronutrient malnutrition in the country. India has about 11 million ha under wheat-rice cropping system. If all of this area can be grown with extra-early cowpea after wheat harvest with an average yield of even 1.1ton/ha, the country can produce a minimum of about 12 million tons of cowpea which would double the current pulses production. This would eliminate import and bring down the escalating prices of pulses in the country. Also, since cowpea is a food legume, the intensive 'wheat-cowpea-rice' system would</p>

increase productivity and profitability while improving the soil fertility and providing balanced food for the masses, income generation by women from preparing and selling snack foods. Cowpea grains have about 25% protein and cowpea haulms up to 17.1% protein with high digestibility and thus can be used as protein supplement with cereal stalks for the feeding of livestock. This intensive cropping system would thus not only bring about protein revolution through increased cowpea grain production but it would also increase milk and meat production through its nutritious fodder and enhanced crop-livestock integration

III. Schedule of Deliverables/Payments and Tasks

1. Schedule of Payments

1.1 Schedule of Payments	Completion Date	Amount (USD)
- Upon acceptance of signed contract	N/A	\$15,000
- Upon receipt of Progress Report (including financial report)	Jun 30, 2008	\$10,000
- Upon receipt of Final Report (including financial report)	Dec 31, 2008	\$ 5,000
	TOTAL	\$30,000

1.2 Tasks	Estimated Completion Date	Amount (USD)
Task 1: Work planning meeting of all the stakeholders held.	April 15, 2008	500
Task 2: A training on improved cowpea cultivation method for relevant support and extension staff organized.	Between April and June, 2008	1,500
Task 3: Selected extra-early cowpea varieties tested and best lines for each location selected.	By November each year but it is a continuous activity	7,000
Task 4: Seeds of the selected cowpea varieties multiplied and variety trial for next year prepared.	By November each year but it is a continuous activity	2,000
Task 5: Food technology work for diversified uses of cowpea initiated.	By December each year but it is a continuous activity	2,500

Task 6. Systematic breeding program initiated with collection of local cowpea lines and crosses among selected parents. Link with advanced labs and IITA to exploit advances in cowpea biotechnology.	A continuous activity to be carried over several years	16,500
	TOTAL:	30,000

2. Scope of Activities	
To reach the goals of the project the following tasks will be solved:	
2.1. Task 1- Work planning meeting of all the stakeholders held.	
Task description and main milestones	Participating Institutions
A meeting of all the stakeholders in the project would be held in early April, 2008 to review the past work and plan for the 2008 activities. In addition, special group meetings would be held in each district with the officials of the State department of agriculture and extension staff to explain the technical details of the project.	GBPUA&T and Uttarakhand State Department of Agriculture
Milestones: 1. Stakeholders meeting held by April 5, 2008, 2. District level meetings held by April, 15, 2008	
Description of Deliverables	
Reports of the meetings held.	
2.2. Task 2- A training on improved cowpea cultivation method for relevant support and extension staff organized.	
Task description and main milestones	Participating Institutions
Village level trainings of participating farmers and relevant extension staff would be organized on the improved package of practices for cowpea cultivation and data collection from on-farm trials.	GBPUA&T and Uttarakhand State Department of Agriculture
Milestones: Village level training of farmers and extension workers held by April 15, 2008.	
Description of Deliverables	
Reports of village level trainings	
2.3. Task 3- Selected extra-early cowpea varieties tested and best lines for each location selected	
Task description and main milestones	Participating Institutions

The best 5 early maturing cowpea varieties would be tested in the State Variety trial as well as in National Variety On-station Trials covering at least 6 locations in Uttarakhand State and at least 6 locations in other north Indian states. In addition, at least 50 on-farm variety demonstrations would be conducted in Uttarakhand State.	
Description of Deliverables	
Results of variety trials	

2.4. Task 4- Seeds of the selected cowpea varieties multiplied and variety trial for next year prepared.	
Task description and main milestones	participating Institutions
Based on the State and National trials results, the best 3-4 cowpea varieties would be multiplied to obtain at least 50 kg breeder seed and 200 kg foundation seeds of each variety.	
Description of Deliverables	
The data on actual amount of seed of different varieties produced	

2.5. Task 5- Food technology work for diversified uses of cowpea initiated.	
Task description and main milestones	participating Institutions
Study of the genotype x environment interaction on protein and mineral contents and qualitative assessment and acceptability of some food products between promising cowpea varieties would be carried out.	
Description of Deliverables	
Results of the proximate analysis and assessment of the food products	

2.6. Task 6- Systematic breeding program initiated with collection of local cowpea lines and crosses among selected parents. Link with advanced labs and IITA to exploit advances in cowpea biotechnology.	
Task description and main milestones	participating Institutions
<ol style="list-style-type: none"> 1. Construction of the poly house by June, 2008 2. Hybridization among selected cowpea varieties for resistance to virus, early maturity and seed quality including high protein, iron and zinc. 3. Production of F2 populations from the existing F1 crosses. 4. Evaluation of existing set of breeding lines developed through selections in last two years. 5. Preliminary and advanced variety trials at selected locations. 6. Initiate breeding program for vegetable type cowpea. 	
Description of Deliverables	

List of crosses made and results of the variety trials.

3. Role of Contributing Collaborators (if any)

None

4. Technical Approach and Methodology (max. one page, if above \$150,000 instead attach detailed proposal)

The standard breeding methods for self-pollinated crops is being followed. First we have selected five promising early maturing lines from IITA and these are being tested at several locations. Two of these have already been identified for release. We have also obtained additional early maturing cowpea lines from the national germplasm bank and these are being evaluated. Based on the strength and weaknesses of the selected five varieties, crosses are being made and F1, F2, F3, F4, F5 and F6 populations are being developed. Segregating populations involving partial backcrosses would also be developed to preserve the high yield and quality traits of the promising varieties. Quality traits and food products would be studied using standard analytical methods.

The selected improved breeding lines would be first tested in on-station trials and then in the state and national variety trials in collaboration with the respective coordinators who distribute and monitor the trials and provide a summarized results from all the locations. The farmers participatory on-farm trails would be conducted in collaboration with Director of Extension and State Department of Agriculture officials.

Breeder and foundation seeds of promising varieties would be multiplied at the Seed Production Center of the University and certified seeds would be multiplied in collaboration with Uttarakhand Seeds and Tarai Development Corporation, M/S Bhawani Seeds Ltd. and other private seed companies.

5. Labor Cost Analysis

Name	Scientific Title	Function in project	Fringe %	Daily rate (USD)	Total days	Total (USD)
Principal Instigator- Dr. Y.V.Singh	Leaders	Managers				
Co-Principal Investigator-Dr. M.C.Nautiyal						
Advisor/Consultant- Dr. B.B.Singh						
Senior Research Fellow @ Rs.12,000/m	SRF	Evaluate	20	-17.27	-220	3,800
Junior Research Fellow -1 @ Rs. 8,000/m	Assistant	Samples	20	-11.36	-220	2,500
Casual Labors				5	100	500
					Total	6,800

6. Financial Items

TABLE 1

	Category	Total
	Direct Labor (including fringes):	
0.1	Senior Research Fellow @Rs. 12,000/m	3,800
0.2	Junior Research Fellow -1 @ Rs. 8,000/m	2,500
0.3	Casual laborers	500
	Total Direct Labor	6,800
	Field Costs:	
0.1	Polyhouse (Greenhouse)	12,500
0.2	Field Workshops & Conferences	500
0.3	Field Travel	
0.4	Field Office costs	
	Sub Total field costs	13,000
	Equipment:	
0.1	Capital Equipment	
0.2	Non-Capital Equipment	
0.3	Fuel and vehicle hiring/servicing	500
	Sub Total Equipment	500
	Facilities & Materials/Supplies	
0.1	Reproduction	
0.2	Software purchase	
0.3	Materials/Supplies/purchase of seeds etc	5,000
	Sub Total Facilities & Materials/Supplies	5,000
	Conferences , Workshops & Meetings	
0.1	Facilities	
0.2	Honorarium	
0.3	Transportation	
0.4	Materials	
0.5	Interpreters	
0.6	Other	
	Subtotal Conference, Workshops & Meetings	

	Travel	
0.1	Train/Airfare	500
0.2	Per diem	300
0.3	Other	
	Subtotal Travel	800
	Other Direct Costs:	
0.1	Communications/ Postage	
0.2	Professional Services	
0.3	Other	
	Subtotal Other Direct Costs	
	Total Direct Costs	26,100
	Overhead charges(15%)	3,900
	General & Administrative	
	Total Indirect Costs	3,900
	CONTRACT COST	30,000

Remarks:

7. Project Location and Equipment

7.1	Institution	Location, Facilities and Equipment
	G.B.pant University of Agriculture and Technology, Pantnagar, Uttarakhand, India	Seed Production Center, Pantnagar

FORMATS FOR MID TERM AND FINAL REPORTS

Both, Technical and Financial reports shall be submitted fully signed by the Principal Investigator (Project Leader) and approved by the Project Manager/Coordinator. Financial reports shall be also signed by the finance official, and shall contain an invoice for payment.

Technical Reports: Mid Term and Annual reports shall specify the progress, any actual or proposed deviations and modifications to the Work Plan, and the results obtained. The reports shall contain sufficient information to enable assessment of the progress and cooperation within the Project.

A suggested format for Mid Term, Annual and Final reports is as follows:

- I. Summary of Technical Progress (By task in the Work Plan)
- II. Milestones Completed
- III. Summary of Personnel Commitments
- IV. Major Equipment Acquired
- V. Description of Significant Travel
- VI. Current Technical Status (on schedule, behind schedule, ahead of Schedule)
- VII. Delays, Problems, Suggestions
- VIII. Financial Reporting

Financial Reports: Mid Term and Annual reports, as established on the Schedule of Deliverables and Payments table, shall be submitted on time to Project Administrator and Project Manager/Coordinator. Financial Reports shall be signed by Finance Official and Principal Investigator (Project Leader), and be authorized by the Project Manager/Coordinator and shall contain an invoice, also signed by Principal Investigator and finance official, for payment. Financial reports shall be prepared based on the project budget line items template.

Budget Reformulation: The Principal Investigator (Project Leader) has the authority to shift up to 20% of each budget line items to other budget line item. Any shifting in excess of 20% shall require approval from Project Administrator and Project Manager/Coordinator.

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Exhibit 2
Centro Internacional de Agricultura Tropical (CIAT)
International Food Policy Research Institute (IFPRI)

GENERAL PROVISIONS

The following General Provisions are incorporated into the attached Agreement as though fully set forth therein.

1. Independent Contractor Status

(a) It is understood and agreed that Collaborator's relationship to CIAT/ IFPRI is that of an independent contractor and that neither this Agreement nor the performance of the Project provided for herein shall, for any purpose whatsoever or in any way or manner, create an employer-employee relationship between the parties. Collaborator shall not hold himself/herself/itself out as an employee of CIAT/ IFPRI. Collaborator will not be eligible for any benefits that are or may be granted by CIAT/IFPRI to its employees, including, but not limited to, participation in any pension or profit sharing plans, unemployment insurance, life insurance, medical insurance, disability or other insurance, or fringe benefits of any kind.

(b) Collaborator shall have the right to control the manner and timing of the Project, subject to the provisions of this Agreement specifying the dates for delivery and payment.

(c) Collaborator shall assume and be responsible for any financial obligations which are required for performance of this Agreement, including but not limited to the employment of assistants, travel expenses, and any other related expenses (except as otherwise provided in Clause IV of the attached Agreement). Collaborator shall be responsible for hiring persons to assist in the performance of this Agreement, and such persons shall be and remain employees of Collaborator and not of CIAT/IFPRI. Collaborator shall be solely liable for the payment of wages and benefits (including tax withholding) and for the supervision of such employees. Collaborator shall have no authority to hire employees on behalf of CIAT/IFPRI, or to incur any expenses or other financial commitments on behalf of CIAT/IFPRI.

(d) Payments made by CIAT/IFPRI under this Agreement shall be made without withholding or other deductions for federal, state or local taxes except to the extent any such withholding or deduction may be required by law. Collaborator shall be responsible for any and all taxes owed with respect to said payments, and shall hold harmless and indemnify CIAT/IFPRI for any and all liabilities that CIAT/IFPRI might incur as a result of his/her/its failure to pay taxes upon said sums.

2. Confidentiality

For the purposes of this Agreement, "Confidential Information" is all information that is disclosed from one party to another in connection with the Project that is/was (i) disclosed in

tangible form and marked "Confidential," "Proprietary" or the like; or (ii) disclosed in non-tangible form, identified as confidential at the time of disclosure and summarized in tangible form marked "Confidential," "Proprietary" or the like within 30 days of the original disclosure by the disclosing party. During the term of this Agreement and for a period of five (5) years thereafter, each party shall treat all such Confidential Information with the same internal confidentiality procedures and with the same degree of care regarding its confidentiality as the party receiving the disclosure treats similar information of its own within its organization. Confidential Information does not include information that (i) is or later becomes available to the public through no fault of the receiving party; (ii) is obtained from a third party who had the legal right to disclose the information; (iii) as of the date of the disclosure, is already in the possession of the party to whom disclosure is made (and such prior possession can be properly demonstrated by the receiving party); (iv) is required to be disclosed by law, government regulation, rule, act or court order (but only to the extent so required); or (v) is independently developed by a party (and such independent development can be properly demonstrated by the receiving party).

3. Intellectual Property

(a) Definitions

"Challenge Program Intellectual Property" means and includes all technical information, inventions, plant cultivars, plant varieties, developments, discoveries, concepts, software, manuscripts, know-how, methods, techniques, formulae, data, processes, logos, and other proprietary ideas, whether or not patentable or copyrightable, that are first conceived, discovered, developed, or reduced to practice by the Collaborator during the course of the Project.

As used herein, "Developing Countries and Territories" refer to a country or territory listed in the "Development Assistance Committee (DAC) List of Aid Collaborators – As at 1 January 2003, Part I: Developing Countries and Territories (Official Development Assistance)", a copy of which is available in Exhibit 3 and at www.oecd.org/dac/stats/daclist. In general, Developing Countries and Territories are countries and territories with a low income average, a relatively undeveloped infrastructure and a poor human development index when compared to the global norm.

As used herein, "More Developed Countries and Territories" means all countries and territories not included in the list of Developing Countries and Territories as defined immediately above. In general, More Developed Countries and Territories are countries and territories with a modern infrastructure (both physical and institutional) and economic systems based on continuous, self-sustaining economic growth.

(b) Reporting of Challenge Program Intellectual Property

Collaborator shall in a timely manner provide the Director of the Challenge Program with a complete written disclosure of all Challenge Program Intellectual Property.

(c) Ownership of Challenge Program Intellectual Property

Unless a separate agreement by the parties specifies otherwise, ownership of the rights to the Challenge Program Intellectual Property shall be owned by the Collaborators that developed it, subject to conditions specified herein. Any and all costs and fees associated with obtaining and maintaining any intellectual property protection for the Challenge Program Intellectual Property, such as via patents or copyrights, shall be the sole responsibility of the Collaborator.

(d) Access and Licensing of Challenge Program Intellectual Property

Regardless of the ownership of Challenge Program Intellectual as specified under 3(c), Collaborator shall grant to CIAT/IFPRI a royalty free, irrevocable, perpetual, worldwide, non-exclusive license to use the Challenge Program Intellectual Property in any and all of its/their own programs for non-commercial purposes only.

In addition, Collaborator shall grant to CIAT/IFPRI a royalty free, irrevocable, perpetual, worldwide, non-exclusive right to sublicense any and all present and future collaborators of the Challenge Program the right to use the Challenge Program Intellectual Property for any and all current and future projects of the Challenge Program for non-commercial purposes only.

This Section 3(d) shall survive termination of this Agreement.

(e) Commercialization of Challenge Program Intellectual Property

It is recognized by the Collaborator that the Project will generate predominantly international public goods, particularly for use in the Developing Countries and Territories. However, subject to the conditions herein, Collaborator shall have the right to commercialize the Challenge Program Intellectual Property in one or more of the More Developed Countries and Territories, as defined above. If Collaborator seeks to commercialize the Challenge Program Intellectual Property, then Collaborator must submit a written commercialization plan (the "Commercialization Plan") for each commercialization opportunity to the Director of the Challenge Program for review.

The Director of the Challenge Program shall have 90 days within which to provide Collaborator with instructions, if any, for amending the Commercialization Plan. Collaborator will consider the instructions and either revise the Commercialization Plan accordingly or enter into discussions with the Director of the Challenge Program regarding reaching a compromise on revising the Commercialization Plan. Collaborator will then submit a Revised Commercialization Plan to the Director for further recommendations and/or approval. If no response is received from the Project Director within 90 days, then licensing/commercialization may proceed.

The PAC shall retain authority to approve licensing/commercialization arrangements up to five years after a patent is granted to Collaborators. If HarvestPlus is terminated as a program within this five-year time frame, the PAC may assign authority to approve licensing/commercialization to an appropriate non-profit entity.

This Section 3(e) shall survive termination of this Agreement.

(f) Royalties

Collaborator shall pay 4 % of the gross receipts, or some other percentage that will be negotiated, realized from the commercialization of the Challenge Program Intellectual Property in the More Developed Countries and Territories in accordance with the commercial objectives of the Commercialization Plan. Such payment will be made on a yearly basis and shall be sent to the Project Manager payable to either IFPRI or CIAT, depending on the Project Manager's parent organization. This Section 3(f) shall survive termination of this Agreement. The royalty payments will be used to further the goals of the Challenge Program.

(g) Respect of Third Party IP rights

Collaborator agrees to respect the intellectual property and proprietary rights of others, for any and all methods, materials and other goods which are used in conjunction with this Agreement.

4. Dissemination of Knowledge

Collaborator is strongly encouraged to promptly make knowledge gained through the Project available to the broader scientific community. Such public disclosure may be temporarily delayed so that appropriate measures may be taken to protect intellectual property as required for commercialization of the Challenge Program Intellectual Property in the More Developed Countries and Territories, as provided for in Section 3.

5. Access to Research Data

(a) Research Data Definition

Research Data is defined as the recorded factual material commonly accepted in the scientific community as necessary to validate research findings. It does not include preliminary analyses; drafts of scientific papers; plans for future research; peer reviews; communications with colleagues; physical objects (e.g., laboratory samples, audio or video tapes); or commercial information.

(b) Sharing Research Data

Organizations/Collaborators that receive HarvestPlus funds through agreements (or contracts) have the obligation to preserve research autonomy, safeguard suitable authorship, and ensure

timely disclosure of their scientists' research results by presentations at scientific meetings and prompt effective access of research data by posting it in an appropriate databank.

6. Standard Citation

All publications, videos, or other information /media products funded or partially funded by HarvestPlus shall acknowledge the contribution made by HarvestPlus. The product(s) shall state that the views expressed by the author(s) do not necessarily reflect those of HarvestPlus.

Wording for acknowledgement

"Financial support for this study was provided by HarvestPlus (www.HarvestPlus.org), a global alliance of agriculture and nutrition research institutions working to increase the micronutrient density of staple food crops through biofortification. The views expressed do not necessarily reflect those of HarvestPlus."

7. Use of CIAT, IFPRI , and the HarvestPlus Challenge Program names, trademarks and logos

Use of the CIAT, IFPRI , and the HarvestPlus Challenge Program names, trademarks, and logos by the Collaborator in any press release or publicity, requires prior written approval by the Director of the Challenge Program and CIAT/IFPRI.

8. Termination

(a) Termination by CIAT/ IFPRI for Cause

The failure of Collaborator to perform the program of work required hereunder in a timely and professional fashion, or otherwise to comply with the terms and conditions of this Agreement, shall be grounds for termination of this Agreement by CIAT/IFPRI for cause. Upon such occurrence, CIAT/ IFPRI shall give Collaborator notice of intent to terminate, and Collaborator shall have thirty days to cure the defect in his/her/its performance. If Collaborator shall fail to do so, CIAT/IFPRI may, by written notice, terminate the Agreement and recover from Collaborator any loss or damage suffered by CIAT/ IFPRI.

(b) Termination by CIAT/IFPRI for Convenience

CIAT/IFPRI may, at any time by written notice to the Collaborator, suspend or terminate this Agreement in whole or in part for its convenience. Upon receipt of such notice, Collaborator shall cease or reduce work according to the tenor of the notice and shall use his/her/its best efforts to mitigate consequential losses to CIAT/IFPRI. Collaborator may submit a claim for compensation and CIAT/ IFPRI shall pay to Collaborator such amounts as are fair and reasonable in respect of any unavoidable loss sustained by Collaborator, provided, however, that:

- (i) Collaborator shall not be entitled to compensation for loss of prospective profits;
- (ii) CIAT/IFPRI shall not be liable to pay any amount which, when added to the amounts payment under the Agreement, would exceed the total payment amount set forth in the Agreement; and
- (iii) CIAT/IFPRI shall not be liable to Collaborator for any amounts that Collaborator is entitled to recover from any insurance.

9. Dispute Resolution

All disputes arising between CIAT/ IFPRI and Collaborator, or relating to this Agreement, or the breach, termination or invalidity thereof, which cannot be resolved through direct negotiation, shall be settled by arbitration in the District of Columbia, by three arbitrators, in accordance with the International Arbitration Rules of the American Arbitration Association. CIAT/IFPRI and Collaborator shall each appoint one arbitrator, and the two arbitrators so appointed shall appoint the third, who shall act as chairman. In lieu of the above procedure, the parties may agree to appoint a sole arbitrator. Judgment upon the award by the arbitrator(s) will be final and binding, and may be entered in any court having jurisdiction thereof.

10. (a) Ownership and Insurance of Vehicles and Equipment

It is understood that all vehicles or equipment purchased with funds provided by CIAT/IFPRI, whether procured by the Collaborator shall be regarded, at the time of delivery, as property belonging to the Collaborator receiving the equipment. In the event that it is the practice of the Collaborator receiving the equipment to insure its own vehicles or equipment, said Collaborator shall arrange to insure any vehicles or equipment purchased with funds provided by CIAT/IFPRI.

(b) Use of Vehicles Purchased by the Program

The Collaborator shall insure that any vehicle purchased with grant funds shall be used exclusively for carrying out the objectives of the Program and only made available to personnel working on the Program for their official use. A suitable log book shall be maintained to record vehicle use, and CIAT/IFPRI reserves the right to examine this travel log book.

(c) Sale Cession or Disposal of Vehicles and Equipment

During the course of the Program, no vehicles or equipment purchased with funds provided by CIAT/IFPRI shall be sold, ceded, or otherwise disposed of without the prior approval of CIAT/IFPRI.

11. Miscellaneous

(a) Prohibition on Assignment

Collaborator shall not assign this Agreement nor any of his/her/its obligations hereunder without the prior written consent of CIAT/IFPRI.

(b) Indemnity

Collaborator shall hold harmless and indemnify CIAT/IFPRI and its employees from all claims, demands, costs, expenses, liability, and causes of action by third parties for death, bodily injury, property damage, infringement of intellectual property, or any other cause of action arising out of or in connection with Collaborator's performance under or as a result of this Agreement. In the event that Collaborator learns of an actual or potential claim by a third party against CIAT/IFPRI and/or Collaborator in connection with this Agreement, Collaborator shall promptly notify CIAT/IFPRI in writing of such claim. CIAT/ IFPRI reserve the right to retain counsel of its choice, at Collaborator's expense, to defend against any such claim. This indemnification clause shall survive termination of this Agreement.

(c) Conflict of Interest

Collaborator represents and warrants that, as of the date of this Agreement, no conflict of interest exists or is likely to arise in the performance of his/her/its obligations under the Agreement. If, during the terms of the Agreement, a conflict or risk of conflict of interest arises, the Collaborator shall notify CIAT/ IFPRI immediately in writing of such conflict or risk or conflict.

(d) Governing Law

This Agreement shall be interpreted and enforced according to the laws of the District of Columbia.

(e) Waiver; Partial Invalidity

No term or provision of this Agreement shall be deemed waived, nor any breach of the Agreement excused, unless such waiver shall be in writing and signed by both parties hereto. Should any part of this Agreement, for any reason, be declared invalid by a court of competent jurisdiction, such ruling shall not affect the validity of any remaining provisions, which shall remain in full force and effect.

(f) Notices

All notices required under this Agreement shall be sent in writing by certified mail, return receipt requested, personal delivery, or by facsimile to Collaborator at the address stated, and to CIAT/IFPRI at its headquarters location, attention Contracts and Grants Administrator.

(g) No Joint Venture

This Agreement shall not be construed to create a joint venture or partnership between CIAT/IFPRI and Collaborator. Collaborator shall not represent himself/herself/itself, and shall ensure that his/her/its employees do not represent themselves, as being employees, partners or agents of CIAT/IFPRI.

(h) Entire Agreement

This Agreement, including Exhibits 1, 2 and 3, embodies the entire agreement between the parties on this subject matter and supersedes any and all prior agreements, written or oral, between the parties. No modification, amendment or deletion of the terms hereof shall be effective unless made in writing and signed by both parties hereto, except that CIAT/IFPRI shall have the right to modify the term in accordance with Clause II of the Agreement.

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EXHIBIT 3 DAC List of ODA Recipients

Effective from 2006 for reporting on 2005, 2006 and 2007

Least Developed Countries and Territories (per capita GNI < \$825 in 2004)	Other Low Income Countries (per capita GNI \$826-\$3 255 in 2004)	Lower Middle Income Countries and Territories (per capita GNI \$3 256-\$10 065 in 2004)	Upper Middle Income Countries (per capita GNI \$3 256-\$10 065 in 2004)
Afghanistan Angola Bangladesh Benin Bhutan Burkina Faso Burundi Cambodia Cape Verde Central African Rep. Chad Comoros Congo, Dem. Rep. Djibouti Equatorial Guinea Eritrea Ethiopia Gambia Guinea Guinea-Bissau Haiti Kiribati Laos Lesotho Liberia Madagascar Malawi Maldives Mali Mauritania Mozambique Myanmar Nepal Niger Rwanda Samoa Sao Tome & Principe Senegal Sierra Leone Solomon Islands Somalia Sudan Tanzania Timor-Leste Togo Tuvalu Uganda Vanuatu Yemen	Cameroon Congo, Rep. Côte d'Ivoire Ghana India Kenya Korea, Dem. Rep. Kyrgyz Rep. Moldova Mongolia Nicaragua Nigeria Pakistan Papua New Guinea Tajikistan Uzbekistan Viet Nam Zimbabwe	Albania Algeria Armenia Azerbaijan Belarus Bolivia Bosnia and Herzegovina Brazil China Colombia Cuba Dominican Republic Ecuador Egypt El Salvador Fiji Georgia Guatemala Guyana Honduras Indonesia Iran Iraq Jamaica Jordan Kazakhstan Macedonia, Former Yugoslav Republic of Marshall Islands Micronesia, Fed. States Morocco Namibia Niue Palestinian Adm. Areas Paraguay Peru Philippines Serbia & Montenegro Sri Lanka Suriname Swaziland Syria Thailand • Tokelau Tonga Tunisia Turkmenistan Ukraine • Wallis & Futuna	• Anguilla Antigua and Barbuda Argentina Barbados Belize Botswana Chile Cook Islands Costa Rica Croatia Dominica Gabon Grenada Lebanon Libya Malaysia Mauritius • Mayotte Mexico • Montserrat Nauru Oman Palau Panama Saudi Arabia (1) Seychelles South Africa • St. Helena St. Kitts-Nevis St. Lucia St. Vincent & Grenadines Trinidad & Tobago Turkey • Turks & Caicos Islands Uruguay Venezuela

• Territory.