

**THE CGIAR INITIATIVE FOR A  
GLOBAL OPEN AGRICULTURE AND FOOD UNIVERSITY (GO-AFU)**

**A Program Proposal Presented by**

**THE CG CENTERS AND AN INTERNATIONAL CONSORTIUM OF PARTNERS**

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# **THE CGIAR INITIATIVE FOR A GLOBAL OPEN AGRICULTURE AND FOOD UNIVERSITY (GO-AFU)**

## **EXECUTIVE SUMMARY**

Agriculture, including livestock, forestry and fisheries, continue to be the foundation for development, hunger eradication, and poverty reduction for much of the developing world. Therefore, strengthening the capacity for agricultural research and analysis for improved policies, programs, technologies, and institutions to achieve food security, agricultural growth, and sustainable natural resource management is essential. Currently, the developing countries are experiencing a significant capacity constraint. This gap between capacity and need must be addressed if the advances made thus far in agriculture-led poverty reduction in the developing world are to continue and if the regions with chronic and transitory food insecurity are to avoid despair in the future.

Renewed efforts to strengthen capacity in the food, agriculture, and natural resource sectors of developing countries are imperative on several grounds. Funding for higher education in agriculture has been declining sharply. As many developing-country students go abroad for their education and remain there, a serious “brain drain” has occurred. Agriculture has been failing to capture the most promising minds in both the South and North, and universities in the developing world often do not have the resources to offer an education in the latest skills and knowledge.

Without reinvigorating food and agricultural systems with well-trained professionals, the quality and quantity of research will diminish, as will returns to developing-country investment in agriculture and implementation of innovative reform agendas. The result will be a reduction in the pace of progress towards the reduction of poverty in the world and the achievement of other Millennium Development Goals. At the same time new science and technology - including information technology, bio-technology, as well as new management and institutional insights - offer important innovative potentials for food and agriculture. These potentials can only be tapped with expanded and improved skills in agriculture, the food sector, and natural resources management.

Distance education is a cost- and time-effective way to strengthen capacity in the poorer countries, can link students in-country to high-quality teaching, and offers an incentive for students and professionals to obtain degrees while working in their own countries. Studies show that a strong demand exists in the South for distance learning and that this demand is growing.

The CGIAR system, with its human and physical assets, has a tremendous opportunity to establish a Global Open Agriculture and Food University (GO-AFU) that would effectively improve the skills of developing-country students and professionals. The CGIAR system has generated a large body of public goods over the past 35 years, has more than 1,000 researchers with solid knowledge on how to develop solutions that increase agricultural productivity, reduce hunger, and improve sustainable management of the natural resource base. In addition, CG centers have experience in using a variety of information and communication technologies through the capacity strengthening activities of its centers.

The CGIAR's activities and achievements constitute a strong base on which an open distance learning capacity strengthening initiative could be based, that serves developing country (open) universities. Yet for the enormous potential impact of the CGIAR system's current and future public goods to be realized, there must be greater access and greater coordination between the centers. Recognizing the opportunity for the CG system, the Center Directors Committee of the CGIAR proposed the development of the initiative described in this document.

**The idea:** *A Global Open Agriculture and Food University will provide course contents and professional and applied academic teaching in partnership with regional and national institutions to enhance research and analytical capacities necessary for sustainable use of natural resources and improved food and nutrition security in the developing countries.*

#### **The GO-AFU would ...**

- **Complement – not substitute** for or compete with – the higher agricultural education programs that traditional and open universities in the developing countries offer. It would complement by filling in the technical and theoretical knowledge gaps;
- Capitalize on, **harmonize, and integrate** the wide array of existing distance learning programs that many of the CG centers have been administering or participating in independently in the developing world;
- Offer its courses in **partnership** with developing and developed country institutions in various languages using distance learning technologies so that all developing countries could benefit.
- Produce courses by CG-center staff and outside experts and enhance their availability. The primary beneficiaries of the program will be **M.Sc. and Ph.D. students** at developing-country universities and **mid-career professionals**, including teachers, researchers and personnel in governmental, nongovernmental, private, and donor organizations that wish to upgrade their skills.
- **Design and deliver academic and training courses in collaboration with national and regional universities** by integrating, enhancing and translating existing CG-center distance learning material; making them available to universities and institutions in developing countries to complement their degree programs; and offering need based M.Sc. and Ph.D. programs by selected developing country universities.
- **Not envision granting degrees.** It shall focus on strengthening existing open universities and other universities in the developing world.
- Reach out to the **indigenous communities** who do not have access to higher education either due to their remoteness or due to declining quality of higher education in their countries.
- Reach a large number of individuals and provide the highest quality programs, the GO-AFU will be structured as an **“open-source” institution**: teaching resources and course contents will be shared with any interested educational institution and will be created by both the CG centers and outside experts through an open-bidding and quality review process. The CGIAR, with its knowledge base and collaborative relationships with a number of regional and national partners, is uniquely positioned to establish and maintain such an open-source system;

- **Develop partnerships** with and provide teaching material and course contents to institutions at various levels. It will share material with, and use information databases of international institutions.
- Help **regional-level organizations** to determine capacity strengthening needs and implement degree programs. **Traditional and open universities** at the national level will be partners in needs assessment, program development, and delivery of the courses. Several educational, research, and donor institutions have already expressed interest in working with a GO-AFU.

CGIAR's technical expertise GO-AFU would provide the missing element of practical knowledge to those who need it and at the same time furnish the advanced theoretical perspectives important for agricultural growth and poverty alleviation. Only through consolidating the various CG-center programs on distance learning can the CGIAR have a large-scale, sustained, positive impact on capacity.

The activities that will be undertaken to establish the GO-AFU and achieve its goals are:

- *Building Coalitions* within the CG system and its regional networks to create awareness of the need for a GO-AFU, build ownership of the initiative, sensitize potential partners, and develop MOUs with partners;
- *Needs Assessment* to determine demand for post-graduate distance education in agriculture; the material, programs, and capacity available in the CG centers; and the knowledge and technology gaps of delivery partners;
- *Course Content Creation* for organizing and enhancing existing CG teaching material, procure new courses from CG staff and outside experts for distance learning, assemble faculty, translate material, and maintain course quality through review by experts from the North and South;
- *Course Delivery* by partner institutions and with faculty guidance, using a variety of technologies (Internet, CD-ROM, television, etc.) and institutional arrangements to ensure course and program accessibility to all interested students regardless of the available distance learning infrastructure, and a rich learning experience;
- *Monitoring and Evaluation* of the program activities and outcomes, the partners, students, and faculty to determine the extent to which the GO-AFU is reaching its goals, the specific areas in which it is having a positive impact, and the issues that remain to be addressed through adaptive management; and
- *Impact Assessment* to gauge the broader effect of the GO-AFU on research and policy in the developing countries. As the programs evolve, in a later phase and after an evaluation and re-assessment, the GO-AFU might also move toward awarding degrees independently as well as in association with existing universities.

The **phasing-in of the initiative** entails a two-year pilot-period in which the CGIAR Centers work only with their existing training and capacity strengthening staff and Center “faculty”. In this phase, existing center activities will be better coordinated with each other and with the cooperating open universities and other universities in the South and North. A major positive effect for strengthening the related public goods provisioning by CG-Centers is already expected from that initiative.

A lean governance structure shall consist of:

- 1) A ***CDC-Oversight Committee (CDCOC)***, which will supervise the GO-AFU Secretariat through the CG-host centers, and by reporting on the GO-AFU to the CGIAR Executive Council and Science Council.
- 2) A ***GO-AFU Secretariat***, which will develop partnerships with organizations, oversee the budget, and execute needs assessment, content creation, course delivery, monitoring and evaluation, and impact assessment. The Secretariat will report to the CG-host center DGs. Its Program-Director-Rector will also maintain collaboration between the GO-AFU and the CG centers and outside experts, and between the CG and partner institutions. A few Resource Experts, such as an Agricultural Scientist/Program Developer, an Agricultural Education Specialist, and an Agricultural Scientist on a rotating basis will serve in the Secretariat.
- 3) A ***Program Advisory Committee (PAC)*** consisting of representatives from partner organizations will be appointed by the CDCOC to advise the GO-AFU Secretariat on priority-setting and addressing gaps, based on monitoring, evaluation, and impact assessments. The PAC will submit the GO-AFU annual report to the CDCOC.
- 4) A ***Task Force of CG-center staff***, which will connect the teaching material and various resources available in each of the CG centers and assist in carrying out the coalition building, needs assessments, and other activities. The Task Force, which is already established, will be composed of key training and capacity strengthening staff of the CG centers and outside experts and is managed by the GO-AFU Secretariat.
- 5) An ***Expert Group for Quality Control and Faculty Selection***, which will ensure the high quality of courses and programs through evaluation, and the selection of faculty members to serve based on criteria it develops with the PAC. The CDC will collect nominations of leaders in academia and the CGIAR Science Council will manage the formation of the Expert Group.

This proposal also assesses the funding required for the GO-AFU. An earlier version of this program document was presented at the CGIAR Annual General Meeting in Nairobi to obtain the comments of internal and external stakeholders in the CG system. This version incorporates the comments received from the October 2003 CDC and AGM meetings in Nairobi.

A timeline for achieving the activities discussed is given below.

6 MONTHS	1 YEAR	2 YEARS	2-3 YEARS	5 YEARS
<b>GOVERNANCE STRUCTURE</b>	<b>INVENTORY ASSESSMENT</b>	<b>HELP OFFER M.Sc. PROGRAMS</b>	<b>ADDRESS GAPS</b>	<b>HELP OFFER PH.D. PROGRAMS</b>
<b>COALITION BUILDING</b>	<b>OFFER EXISTING MODULES</b>		<b>STRENGTHEN MATERIAL/PROGRAMS</b>	
<b>NEEDS ASSESSMENT</b>	<b>MONITORING/ EVALUATION</b>		<b>EXPANSION IN OFFERING M.Sc. PROGRAMS</b>	
			<b>ADDRESS SUSTAINABILITY</b>	
			<b>IMPACT ASSESSMENT</b>	
			<b>DEVELOP PH.D. PROGRAM</b>	
			<b>TRANSLATION</b>	

## **The CGIAR Initiative for a Global Open Agriculture and Food University**

*The idea: A Global Open Agriculture and Food University will provide course contents and professional and applied academic teaching in partnership with regional and national institutions to enhance research and analytical capacities necessary for sustainable use of natural resources and improved food and nutrition security in the developing countries.*

### **PROBLEM AND RATIONALE**

In the new millennium, agriculture, including livestock, forestry, and fisheries, will continue to be the foundation for economic growth, hunger eradication, and poverty reduction for much of the developing world. Strengthening the capacity for agricultural research and analysis is fundamental if improved strategies and programs that utilize new technologies and institutional frameworks are to emerge. Helping researchers and decisionmakers in these countries to enhance their professional skills so they can develop improved technologies, institutions, policies, and programs for food security, agricultural growth, and natural resource management is, therefore, an essential step to improve the welfare of the world's poor.

Currently, there is a significant shortage of capacity to conduct quality research and devise sound strategies for agricultural development in poor countries. This capacity gap, which is expected to widen if no action is taken, must be addressed if the advances made thus far in agriculture-led poverty reduction are to continue and if the regions with declining food security are to avoid a future of despair. Recognizing this major development challenge, the Center Directors Committee (CDC) of the CGIAR system in February 2003, at The Hague, requested that IFPRI draft a concept note describing the structure and feasibility of a Global Open Agriculture and Food University (GO-AFU) that would involve all 16 CGIAR centers in a collaborative arrangement.\*

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\* The concept of a GO-AFU has evolved over some time through discussion in various fora. At the February 2003 meeting of the CDC, IFPRI proposed the concept of an Open University under the CG system. The CDC asked IFPRI, CIFOR, and IRRI to develop an initial document on the idea for discussion. Leading the initiative, IFPRI produced a concept note and submitted it to IRRI and CIFOR for comments. IFPRI revised the concept note based on the feedback and presented it at the May 2003 CDC meeting at The Hague. There the CDC suggested that a task

Indeed, renewed efforts to strengthen capacity in the food, agriculture, and natural resource sectors of the developing countries through support to traditional and distance learning institutions are imperative on several grounds. Post-graduate students and professionals in the agricultural field today are facing limits on their access to further education because funding and support for higher education in agriculture has been declining sharply during the last decade. The cost of attending a developed-country university is prohibitive for a student from a poor country if s/he has no financial assistance, and even in the developing world, higher education can be expensive. Several developing country universities and institutions are starting to offer courses in distance mode and are facing technical and quality challenges. Although there is a strong desire on the part of young researchers to acquire more advanced technical, analytical, and managerial skills related to agriculture and its allied fields, which the universities in their respective countries do not have the full capacity to offer, the high cost of tuition and the decline in donor funding for scholarships together prevent a large number of them from enhancing their capacities. The severity of the problem is seen when one considers that most of the first generation of researchers, agricultural teachers, and extension workers who were trained in the 1960s and 1970s have now retired, and there is very few to replace them. The question and challenge is how the next generation will be trained.

Even if a young agricultural researcher can afford to attend a university for an advanced degree, the prospect of leaving full-time employment and perhaps even relocating or leaving one's family are disincentives to pursue further education. Furthermore, if a researcher attends a traditional university, it means that a valuable member of the workforce is removed for 2-5

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force, involving all of the CG centers, be formed to develop the concept further and obtain another round of suggestions from the various CG centers involved in distance learning activities. Currently, there is a 20-member task force from the 16 CG centers participating in the development of the Open University idea. After comments and suggestions were received from the CG centers, IFPRI organized a program development workshop in July 2003 with selected stakeholders, national partners, and CG centers. The CDC requested that IFPRI take responsibility for developing a program document. This draft incorporates the suggestions from the CG centers. In October 2003, a draft program document was presented at the CDC and AGM meetings in Nairobi. This version incorporates the suggestions and comments made by the participants of these meetings.

years. Unfortunately, it is often the case that when students do go to developed countries for education, “brain drain” occurs, as individuals decide to remain in these countries to work after graduation. When this happens, the returns on investments in capacity strengthening are often low for the poorer countries.

Agriculture and its related fields have been failing to capture the most promising minds in both the South and the North. Added to the lack of access to higher education, this has resulted in less agricultural research in recent years. Without reinvigorating the food and agricultural systems with well-trained professionals, the quality and quantity of research will diminish, as will the returns to developing-country governments and the CGIAR system’s investments in agricultural research. In turn, the technologies, institutions, and policies that agricultural professionals, including policymakers, formulate will be increasingly inappropriate to foster agricultural growth and reduce poverty, as they will be founded upon a weak research base.

Without access to advanced knowledge in fields as diverse as trade, biotechnology, and environment, developing countries will grow more marginalized as the already deep economic, digital, technical, and health-related "divides" with the industrialized world. The situation is most bleak in countries where human capital is being ravaged by the HIV/AIDS pandemic. Indeed, the knowledge and technologies generated at institutions of higher learning are today considered the new public goods that will generate economic growth and alleviate poverty. The World Bank in its recent publication, *Constructing Knowledge Societies: New Challenges*, writes: “...knowledge accumulation and application have become major factors in economic development and are increasingly at the core of a country’s competitive advantage in a global economy.”

Therefore, as capacity strengthening efforts must be revived, higher education must also be made more accessible in the developing world. Distance learning technologies can reduce the cost of education significantly for post-graduate students and professionals in the poorer countries, are a cost- and time-effective way to strengthen institutions, and can provide a link to high-quality teaching. For example, existing distance learning programs have allowed Master’s-level faculty in some African universities to upgrade their skills while they teach, and agricultural

professionals in remote areas to take courses without having to travel great distances or leave their positions. Distance learning programs are also cost-effective because, since they enable students and professionals to obtain degrees in their respective countries and to attend courses on subjects directly and practically relevant to their everyday work. Brain drain is reduced when professionals are trained in-country, where they can apply new knowledge as they master it, thus increasing the benefits that developing countries receive in terms of improved research and policies.

In fact, a number of open universities and distance education programs that offer instruction in agriculture and related fields have arisen in the developing world and interest in distance learning there is growing. Several studies show clear evidence that a demand for distance learning exists in the poorer countries. Because strengthening capacity through improved, and more accessible higher education is so important, international donors have begun to invest in developing-country universities and in information and communication technologies.

#### **THE RATIONALE: AN OPPORTUNITY FOR THE CGIAR**

A CGIAR distance learning program that draws on the existing training and teaching resources and expertise within the system has the potential to meet the demand of researchers, other mid-career personnel, and post-graduate students for increased capacity and helping to create a generation of highly skilled agricultural professionals in the developing world. Over the past 35 years, the CGIAR system, through its research and technological and institutional innovations, has generated a large body of public goods. These achievements and the CG system's roster of more than 1,000 well-trained, experienced researchers constitute a strong base on which an open and distance learning initiative could be founded.

In addition to agricultural research and knowledge generation, the CG centers have also been involved in information sharing using emerging information and communication technologies and in strengthening capacity so that developing countries can learn from and use CG research.

These features and activities of the CG system coupled with the strategic location of its centers and offices all over the world constitute a tremendous opportunity for the system to establish a

Global Open Agriculture and Food University (GO-AFU) that would be effective in terms of cost and impact in improving the skills of developing-country students and professionals. Perhaps no other network of institutions has the knowledge base in agricultural research and the organizational structure to work closely with regional and national partners for an open learning venture. Finally, investing in a distance education program for capacity enhancement in agriculture would complement and help generate greater returns from other CGIAR research and agricultural development initiatives.

Yet for the enormous potential impact of the CGIAR system's public goods to be realized, access to these goods must be improved. A Global Agricultural Open University would enable the CG system to capitalize on, harmonize and integrate the wide array of existing and well-developed distance learning programs that many of its centers have been administering independently in the developing world, and enhance their availability. The table below summarizes the relative strength of each center in undertaking distance learning.

The strong resources and services these programs provide and the distance learning material several other CG centers are developing could be harnessed to provide, given the increasing access to information and communication technologies available, advanced teaching that complement the higher education programs in agriculture that campus-based and open universities in the developing countries offer. Indeed, only through consolidating the various distance learning programs of the CG centers can the CGIAR system have a large-scale and sustained impact in terms of capacity strengthening. Having developed a large and rich set of public goods, the next step for the CGIAR could be improving access to these goods, which is critical if they are to generate change.

### Current Activities of CG Centers in Distance/E-Learning and their Relative Strength

CG Centers	Strong	Some	None
CIAT		*	
CIFOR			*
CIMMYT		*	
CIP	*		
ICARDA			*
ICRAF			*
ICRISAT	*		
IFPRI		*	
IITA			*
ILRI			*
IPGRI		*	
IRRI	*		
ISNAR	*		
IWMI			*
WARDA			*
WorldFish			*

The GO-AFU would fill knowledge gaps, improve existing post-graduate degree programs in the developing world, and help offer high-quality degree programs using a range of technologies for distance education, web-based, CD-Rom, traditional text, and other technologies in a variety of languages so that all regions of the developing world may benefit.

A major challenge in post-graduate agriculture education today is that students in both the developed and developing worlds are finishing their degrees without having mastered the needed practical skills. With the expertise CGIAR researchers have in technical areas, the GO-AFU can provide the missing element of practical knowledge to those who need it and at the same time furnish the advanced theoretical perspectives that are equally important for agricultural growth

and poverty alleviation. Improving the quality of higher education in agriculture in the developing countries would attract more students to the field and raise its prestige.

Because the GO-AFU would seek to reach a large number of individuals through developing country institutions and provide the highest quality course contents, it is vital that it be structured as an “open-source” institution. According to the open-source framework, which is being adopted increasingly in a variety of fields, such as software development, the teaching resources and course contents of the GO-AFU will be shared with any interested educational institution in the developing and developed countries, and created by CG centers as well as outside experts through a process that ensures high-quality material. The CGIAR, with its organizational framework and resources, is uniquely positioned to establish and maintain an open-source system.

The positive response and valuable comments of the various centers to the initial proposal of an open university illustrates that a distance education program could be a CG-wide effort. Without such a concerted effort to strengthen agricultural capacity in the developing world, the CGIAR system will gradually see, as its return on investments in research, a reduction in the pace of progress toward reducing world poverty and achieving the other Millennium Development Goals.

## **GOAL AND OBJECTIVES**

**Goal:** To strengthen the capacity of developing-country institutions, researchers, other working professionals, and post-graduate students in agriculture (including livestock, forestry, and fisheries), particularly in developing countries to enhance agricultural development, poverty alleviation, and food security.

Based on feedback from the CG centers and dialogue with potential partner institutions in distance learning, this initiative will have the following broad objective:

**Overall Objective:** *To establish a distance education program, to be developed gradually into a Global Open Agriculture and Food University, that provides in partnership with developed and*

*developing country national and regional institutions, high-quality course contents and teaching by international standards to post-graduate students, researchers, and professionals through course modules and academic programs drawing on the knowledge of CG-system, its partners, and outside experts.*

This broad objective consists of six specific ones that will be sequenced, but initiated simultaneously at the beginning of the project:

*Objective 1: To integrate and enhance existing CG-center distance learning course modules and convert training materials into additional teaching module through the procurement of high-quality material developed by CGIAR staff and external experts.*

*Objective 2: To make course contents and modules available to universities in the developing and developed world to complement their M.Sc. and Ph.D. programs in agriculture.*

*Objective 3: To translate existing modules into other languages to reach out to wide range of participants including the population groups in remote regions and to generate greater impact.*

*Objective 4: To develop and help offer in partnership with developing country institutions nine to twelve complete M.Sc. programs, based on CG-center material and external authorities in the fields for delivery via distance education methods to developing-country students.*

*Objective 5: To formally support and strengthen existing degree-granting programs of developing and developed country universities with the GO-AFU distance learning materials.*

*Objective 6: To help selected partner institutions to construct and offer a Ph.D. degree program through distance learning for developing-country post-graduates in an arrangement with developing- and developed-country universities.*

In achieving the above objectives, the Global Open Agriculture and Food University will:

- Be a one-stop, open source for all academic teaching and capacity strengthening material that the CG centers and any other qualified people and institutions offer;
- Use relevant electronic, information, and communication technologies to make all teaching material easily accessible to higher learning institutions, professionals, and students in developing countries; and
- Reach a wide range of audiences, including researchers, academics, and personnel in governmental, nongovernmental, private, and donor organizations.

In the course of achieving the GO-AFU objectives, the program will also accomplish several objectives for the CG-System:

- Increasing collaboration among trainers, ICT-KM, and librarians within the centers;
- Improving institutional and human capacity within the CG centers for offering distance education.
- Increasing formal collaboration between the CG centers in offering distance education; and
- Forging or strengthening relationships between the CG system and global, regional, and national partners involved in food and agricultural capacity strengthening.

### **OBJECTIVES 1-3**

The program will first bring together the available material in the CG centers that are useful for meeting the existing demand in the developing countries for new skills and knowledge and for building the foundation for post-graduate distance learning programs. It will also acquire and deliver modules of international standard that experts outside the CG system wish to contribute and which the GO-AFU has approved. Achieving objectives 1-3 will help to demonstrate the potential of the GO-AFU.

The aim is to integrate the course modules that already exist within the CG centers and other training material that could be developed into teaching modules with little investment, to create more comprehensive programs for distance learning that working professionals in agriculture could take to expand their skills, and to improve access to these materials. Researchers in developing countries have a strong interest in adding to their knowledge, based on the high

demand for the course modules available in the CG system. Bringing together the existing modules, which are largely on technical subjects, and developing new ones to complement them would provide an in-depth, thorough, and practical treatment of these subjects. For example, modules on plant breeding developed at CIMMYT could be combined with material on the subject from ICRISAT and IITA. The cutting-edge research of the CG system could thus be made available in the South to supplement the more theoretical teaching provided there. Additionally, the GO-AFU will seek to acquire teaching material that those knowledgeable on agriculture and its related fields who are outside the CG system may wish to contribute.

To encourage the rapid development of high-quality modules from outside the system, the CGIAR could establish a competitive bidding process for the development of courses, a proposal review, and support the winners with grants. Those who take any GO-AFU module will receive a post-graduate certificate. In addition to adapting the modules to a variety of technologies to ensure access to them, the modules, which are generally in English, will also be translated into and offered in other languages so that a larger number of developing countries will be able to benefit from these public goods.

#### **OBJECTIVES 4-5**

While preparing and making available CG-center modules, either individually or in a series for more comprehensive teaching, the program will in partnership with developing and developed country institutions, also develop complete M.Sc. programs for developing-country post-graduates for joint delivery via distance education technologies. These programs, which will be finalized after the needs assessment exercise to be conducted in consultation with partner institutions in the South, will consist of the existing modules in the CG centers and other courses created, based on the research and expertise of the centers and external authorities.

**Twelve Indicative M.Sc. Programs of the GO-AFU**  
(A preliminary and not an exhaustive list)

<b>Program</b>	<b>Potential CG-Center Collaborators</b> (in all cases other Non-CG Partner Institutions are planned to participate)
Research Management	ISNAR, IFPRI, IPGRI and others centers
Seed Technology and Policies	CIMMYT, IRRI, CIAT, ICARDA and others
Agriculture and Applied Economics	IFPRI, CIMMYT, IRRI
Plant Breeding for Tropical Agriculture	CIMMYT, CIAT, IITA and ICRISAT
Natural Resource Management	ICRISAT, ICARDA, ICRAF, CIFOR, CIMMYT and IWMI
Forestry Management	CIFOR and ICRAF
Aquaculture and Fisheries Management	WorldFish Center
Food Security and Nutrition	IFPRI and others
Livestock Management	ILRI, ICRAF, ICARDA, IFPRI
Biodiversity and Germplasm Management	IPGRI, ICARDA, and Others
Water Resource Planning and Management	IWMI, ICARDA, IFPRI and Others
Crop Protection and Pest Management	CIAT, IITA, CIMMYT, ICARDA and others

The GO-AFU will offer these programs in collaboration with other educational institutions in developing and developed countries, which will grant the degrees in association with GO-AFU. Credits earned for certificate-granting modules may be bundled and applied toward a M.Sc. degree to be granted by the partner institutions, with the requirement that the student will write a Master's thesis. CG centers will provide, where possible, necessary research support for the students through their research programs implemented in many parts of the developing world.

The courses in these M.Sc. programs will be made available to developing-country open and regular universities to incorporate into their Master's level agriculture programs. Once these institutions accredit the GO-AFU courses, their students will receive credit for taking the courses

as they pursue a degree from their respective national or regional universities. This arrangement will be based on the establishment of a formal collaboration with each university for a joint-degree program. This objective will be undertaken at the beginning of the first year and the joint M.Sc. programs will be available at the beginning of the third year.

#### **OBJECTIVE 6**

At the beginning of the fifth year, students will be able to enroll in a GO-AFU-sponsored Ph.D. program that will be offered by developing and developed country partner institutions. The program will be available for post-graduate students who have earned a Master's degree either through collaboration between the GO-AFU and another institution or entirely from another institution. After meeting coursework requirements, students will be able to earn a Ph.D. by writing a dissertation under the guidance of a CG-center staff member.

#### **BENEFICIARIES**

The primary beneficiaries of the program will be:

- Developing country universities and institutions that would in partnership with GO-AFU, use the course contents and teaching materials to be developed based on needs assessment.
- Master's and Ph.D. students at developing-country universities, which have incorporated Global Open Agriculture and Food University modules into their academic programs, who wish to obtain skills in technical fields to complement their degree programs, and those who choose to enroll in a complete degree program.
- Mid-career professionals who wish to upgrade or augment their skills. They include teachers, researchers, and technical professionals from academic, government, and nongovernmental organizations, and from the private sector. Government professionals include those from the ministries or departments of food, agriculture, planning, economic development, natural resources, livestock, fisheries, and forestry.

Post-graduate students, researchers, and other mid-career professionals will be able to earn a certificate, post-graduate diploma, M.Sc. or Ph.D. In addition, the proposed program will

reach out to the communities and indigenous population such as the one in Andean region, that are isolated due to remoteness and extreme poverty and due to low coverage of existing educational systems.

## **CONCEPTUAL FRAMEWORK**

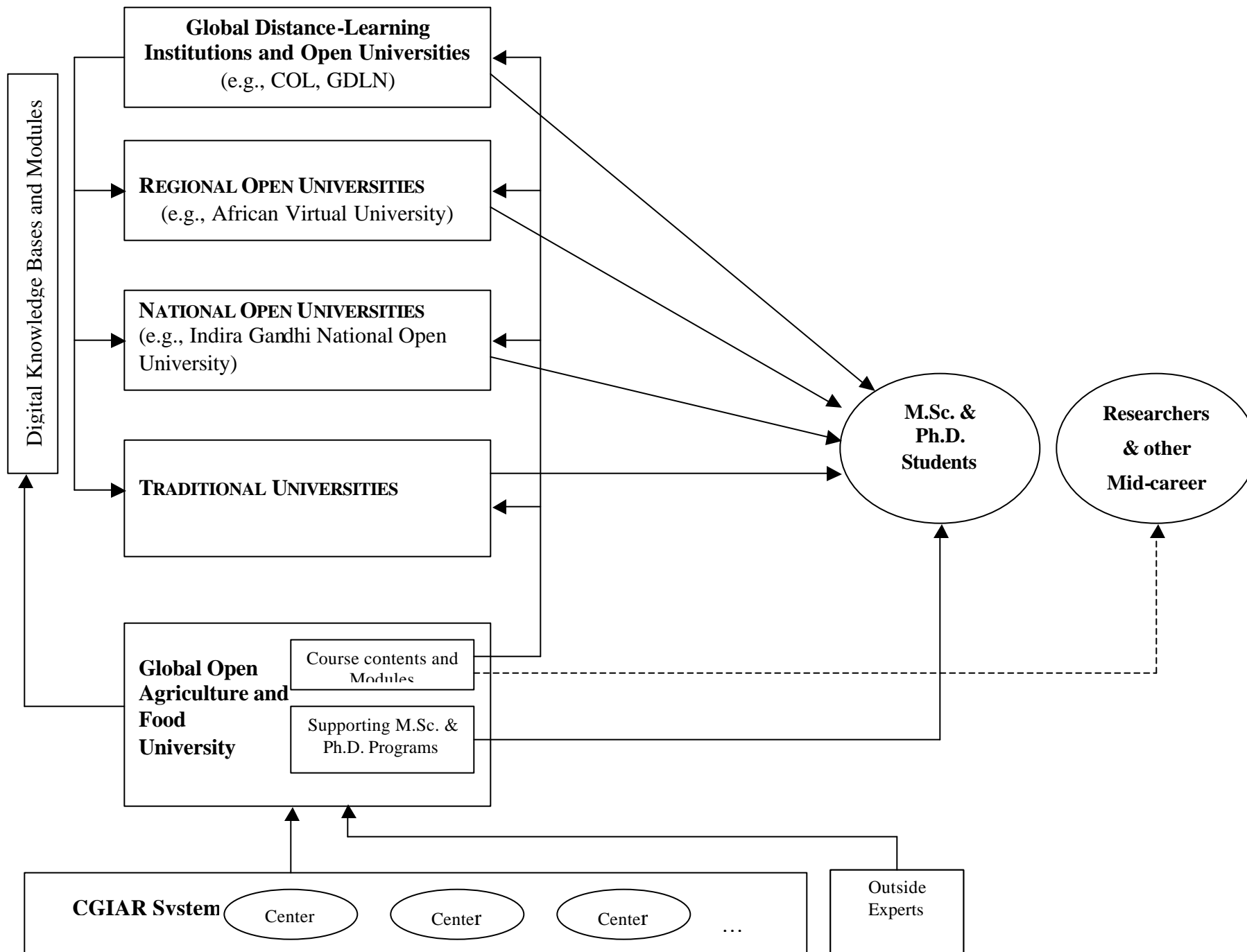
The GO-AFU will be an open-source institution in the sense that its courses and programs, a set of global public goods, will be available to any educational institution or individual interested in using them. Additionally, it will jointly offer courses designed by researchers, academicians, and even students outside the CG system and approved by the CG system. A competitive bidding process will enable external experts to develop and contribute teaching material to the GO-AFU. Finally, the GO-AFU will provide databases of non-CG institutions and other information important for higher learning in agriculture. The open-source framework involves a number of developers and providers at many different locations and organizations, in and outside the CG system, contributing to the GO-AFU according to mutually accepted terms of partnership.

The open source approach ensures availability, development, and distribution of the best available materials, which are judged according to the standards for excellence established by the GO-AFU. Furthermore, feedback will be encouraged from institutions using GO-AFU material on how the resources and services could be improved. The GO-AFU will serve as a catalyst for building coalitions and developing a consortium of distance learning institutions for agricultural capacity enhancement.

The open-source framework that links the GO-AFU with other educational institutions, traditional and open, at the global, national and regional levels, is presented in Figure 1. The GO-AFU will develop partnerships with and provide teaching material to institutions at various levels. At the international level, it will form arrangements with the Global Forum for Agricultural Research (GFAR), Global Distance learning Network (GDLN), United Nations University, Food and Agricultural Organization of the United Nations (FAO), and other global institutions involved in agricultural capacity strengthening in developing countries. At the regional level, organizations such as the Association of Asian and Pacific Agricultural Research

Institutes (AAPARI), Forum for Agricultural Research in Africa (FARA), and the Inter-American Institute for Cooperation in Agriculture (IICA) will help to determine capacity strengthening needs. Other regional agricultural networks, such as ASARECA, AARINENA and CORAF, will be key partners in implementing GO-AFU courses. At the national level, the emerging open universities offering capacity strengthening programs in agriculture will be the key collaborators. Traditional universities that offer post-graduate and in-service courses will also be partners in the development and provision of courses and degree programs. Based on initial contacts made with educational, research, and donor institutions, a large number of them are interested in collaborating with the CG system for distance learning, and some of them have already agreed to participate in the GO-AFU (see Appendix 1 for a list of these institutions).

**Figure 1. The Open-Source Framework of the Global Open Agriculture and Food University**



## **ACTIVITIES**

Outlined below are the major initial activities and the steps necessary to establish the GO-AFU.

### **BUILDING COALITION AND PARTNERSHIPS**

Given the large number of partners and collaborators that will be involved in the GO-AFU, it is essential to forge a relationship with each of them and build coalitions. The program will therefore:

- Create within the CG system and especially among the GO-AFU Task Force members, an awareness of the need for a system-wide distance education program and ownership of the initiative;
- Sensitize potential partners at the global (United Nations University, GFAR, Commonwealth of Learning (COL), Global Development Learning Network (GDLN)), regional (African Virtual University, ASARECA, APAARI, AARINENA, SADC, REDCAPA, FARA, and CORAF) and national (Indira Gandhi National Open University, public and private universities) levels, and civil society organizations. Memoranda of Understanding will be developed with each of the partners to meet their specific needs. The GO-AFU will create a consortium of CG centers and partner institutions to deliver distance education in agriculture; and
- Bring in NGOs and Civil Society Organizations, including farmers' organizations, government, and private for-profit organizations as members of the consortium so that they may contribute to the needs assessment and module development.

### **NEEDS ASSESSMENT**

A situational analysis will be conducted with stakeholders to determine their needs and the availability of information and communication technologies for each region. Along with the situational analysis an assessment will be conducted collaboratively with the CG centers and partner institutions to take stock of the following:

- Course modules already available in the CG centers and other training material that can be adapted for teaching through distance education;

- CG material currently available in languages other than English, and the courses for which demand exists in the non-English-speaking developing world;
- Current distance learning programs and initiatives in the CG system;
- Human resource capacity in the CGIAR and partner institutions for distance education and distance learning courses delivered by partner educational institutions in developing countries that could be enhanced through CG center input; and
- Needs in developing countries for material on capacity strengthening and distance learning technologies. The GO-AFU will work with partner institutions to enhance their technological capacity to deliver distance education.

### **CONTENT CREATION**

Several steps will be taken to prepare material for delivery in distance education:

- Organize the existing CG distance learning modules appropriate for comprehensive teaching and degree programs. In collaboration with the ICT-KM system-wide initiative the GO-AFU will retrieve the existing material from each center;
- Convert relevant traditional material into learning objects for distance education courses;
- For new courses, assemble subject matter specialists in and outside the CG system (for each course) and have them design the courses (all courses will be periodically improved in terms of quality and relevance);
- Procure courses created by external experts through an open-bidding and review process;
- Adapt content to reflect regional circumstances;
- Have distance education experts adapt courses for virtual learning where necessary;
- Translate English material into other languages if demand for them exists; and
- Conduct a peer review of distance learning courses, employing experts from North and South, to guarantee quality and relevance.

### **COURSE DELIVERY-METHODS**

To ensure that GO-AFU courses and programs are available to all students and mid-career professionals interested in them and that students have a positive learning experience, the GO-AFU will work with its partners to find the technologies and institutional arrangements that maximize accessibility and learning. The program will:

- In partnership with collaborating institutions, adapt delivery of courses and modules to available local technologies. Where possible, advanced technologies will be used. In cases where a partner institution does not have high technological capacity, the GO-AFU will tailor courses to the infrastructure the partner institution has. The program will be flexible about the distance learning technologies it uses and the format in which material is presented, in that it will use a combination of all possible means based on the distance learning, determined during the Needs Assessment phase, so that the material will be accessible to students and professionals. Computer-based technologies, such as the Internet, CD-ROM, and text messaging, will be combined with radio, television, and print materials as determined by the partner institutions.
- Employ different paths for joint course delivery given the various partnerships the CG forms with other institutions. For example, GO-AFU material may be made available to African universities through the GDLN, and IGNOU may use GO-AFU courses for its own Master's program.
- Orient partner-institution facilitators, who will assist students;
- Support the teaching done through courses by arranging for the provision of digital library knowledge bases (Common Wealth of Learning (COL), Access to Global Online Research in Agriculture (AGORA), International Network for the Availability of Scientific Publications (INASP), CG Info Finder, CGIAR Learning Resources Center, the Knowledge Bank and Virtual Library) and the training to use these databases;
- Provide each trainee/student with an e-mail address, and a web platform (an Open University portal with possibility of forum discussion or posting remarks or open questions) that connects to a GO-AFU server so they can receive material and communicate with course topic experts and other trainees/students and facilitate monitoring, evaluation and impact assessment. The distance education program structure will recognize CG experts who provide feedback to students with recognition for their work;
- CGIAR staff and partner institutions will help provide field support for Master and Ph D theses;
- Assign outside experts who have designed a GO-AFU course as the resource persons for students taking the course; and

- Obtain program accreditation from international institutions to attract students.

The partner institutions will deliver courses with support from CG content providers.

### **MONITORING AND EVALUATION**

To determine the extent to which the program is reaching its goals, the specific areas in which it is having a positive impact, and the issues that remain to be addressed, the GO-AFU will monitor and evaluate the following:

- Activities to identify outcomes;
- Course content through peer review for quality control;
- Joint methods of course delivery;
- Partner institutions that deliver the courses;
- Student performance;
- Student feedback on course professors.

Any difficulties encountered in the program's operation will be addressed through adaptive management.

### **IMPACT ASSESSMENT**

Steps will be taken to assess the broader impact and functioning of the GO-AFU.

These will be made up of:

- Employing a set of indicators developed for monitoring the impact of the GO-AFU;
- Obtaining baseline information on the professional position of individuals before they enroll in a CG course or program and comparing this information to the responsibilities the student/trainee has after they have completed a course or program. Qualitative information may be gathered from students and/or their workplace supervisors on whether and how the course/program enabled them to undertake more advanced work and achieve certain outcomes;
- Asking students/professionals to evaluate the courses and the GO-AFU and its partners as a whole; and

- Assessing impact through an expert review committee of few experts from CG and non-CG institutions

## **TIMEFRAME**

The phasing-in of the initiative entails a **two-year pilot-period** in which the CGIAR Centers work only with their existing training and capacity strengthening staff and Center “faculty”. In this phase, existing center activities will be better coordinated with each other and with the cooperating open universities and other universities in the South and North. A major positive effect for strengthening the related public goods provisioning by CG-Centers is already expected from that initiative. The timeframe below describes when the activities will commence.

### **6 Months (November 2003– April 2004)**

1. Establishment of a GO-AFU governance structure (CDC Oversight Committee; Program Advisory Committee; GO-AFU Program Task Force; and Expert Group on Curriculum, Content, and Quality Control);
2. Establishment of GO-AFU Secretariat;
3. Coalition building within CG system through workshops in Central Asia, China, East and Southern Africa, Latin America, South Asia, Central and West Asia, North Africa, Southeast Asia, and West and Central Africa (these will also serve for the material identification and needs assessment exercises), and with the CG ICT-KM Group;
4. Coalition building with global, regional, and national partners, and development of MOUs;
5. Needs assessment with partner institutions to develop module, course, and joint degree program material.

### **1 Year (November 2003 – November 2004)**

1. Inventory assessment, identification of course materials, and development of modules by CG researchers and outside experts, including translation of material from English.
2. Jointly offer modules and courses through diverse technologies to students and mid-career professionals at developing country partner (open) universities.
3. Monitoring and evaluation

### **2 Years (November 2004 – November 2005)**

1. Joint development of 5 Master's programs
2. Initiate joint M.Sc. degree program with partner universities on a pilot basis.

### **2 to 3 Years (November 2004 – November 2006). These activities will commence at this stage and continue throughout the program.**

1. Joint Program maintenance
2. Impact assessment
3. Fill gaps in program with additional modules
4. Address program sustainability and look for opportunities for cost recovery
5. Expand M.Sc. program with partner institution
6. Jointly develop Ph.D. program
7. Increase material in developing-country languages
8. Strengthen and revise course material

### **5 Years (November 2003-November 2008)**

1. Jointly offer Ph.D. program with a collaborating university at beginning of year five

Appendix 2 provides a table showing the timeline for the accomplishment of the various activities and the deliverables for the program. Appendix 3 identifies the lead institution for each.

### **PROGRAM RISKS**

The design and implementation of the GO-AFU program entails certain risks. Adapted courses may not meet the quality standards the CG system has established and may not develop

analytical and technical skills. Another risk is that the courses and programs the GO-AFU creates and provides will not match the areas in which capacity needs to be strengthened in the developing world. Through monitoring, evaluation, and adaptive management, the GO-AFU will seek to minimize these risks. If it systematically addresses these and other potential impediments, the GO-AFU could over time effectively help students and professionals to develop advanced knowledge in agriculture and its related fields.

As in any distance learning program, there is the risk that students might not be able to interact closely with one another and the faculty on a regular basis. By identifying opportunities to increase such interactions on a country and regional basis, the GO-AFU would minimize this risk.

#### **NEXT STEPS**

The first steps in this initiative will be to identify funding sources and the national and regional partners that the CG will collaborate, and begin the process of curriculum development. The emergence of information and communication technologies for the past decade provides enormous opportunities for reaching the institutions in developing countries. Combining this trend with the comparative advantage of the CG in agricultural research and capacity strengthening presents a unique opportunity. By organizing existing human resources within the CG system in collaboration with essential national and regional partners, the GO-AFU could contribute to improved national capacity, a public good that could enable the developing countries to achieve strong agricultural growth and reduce poverty significantly.

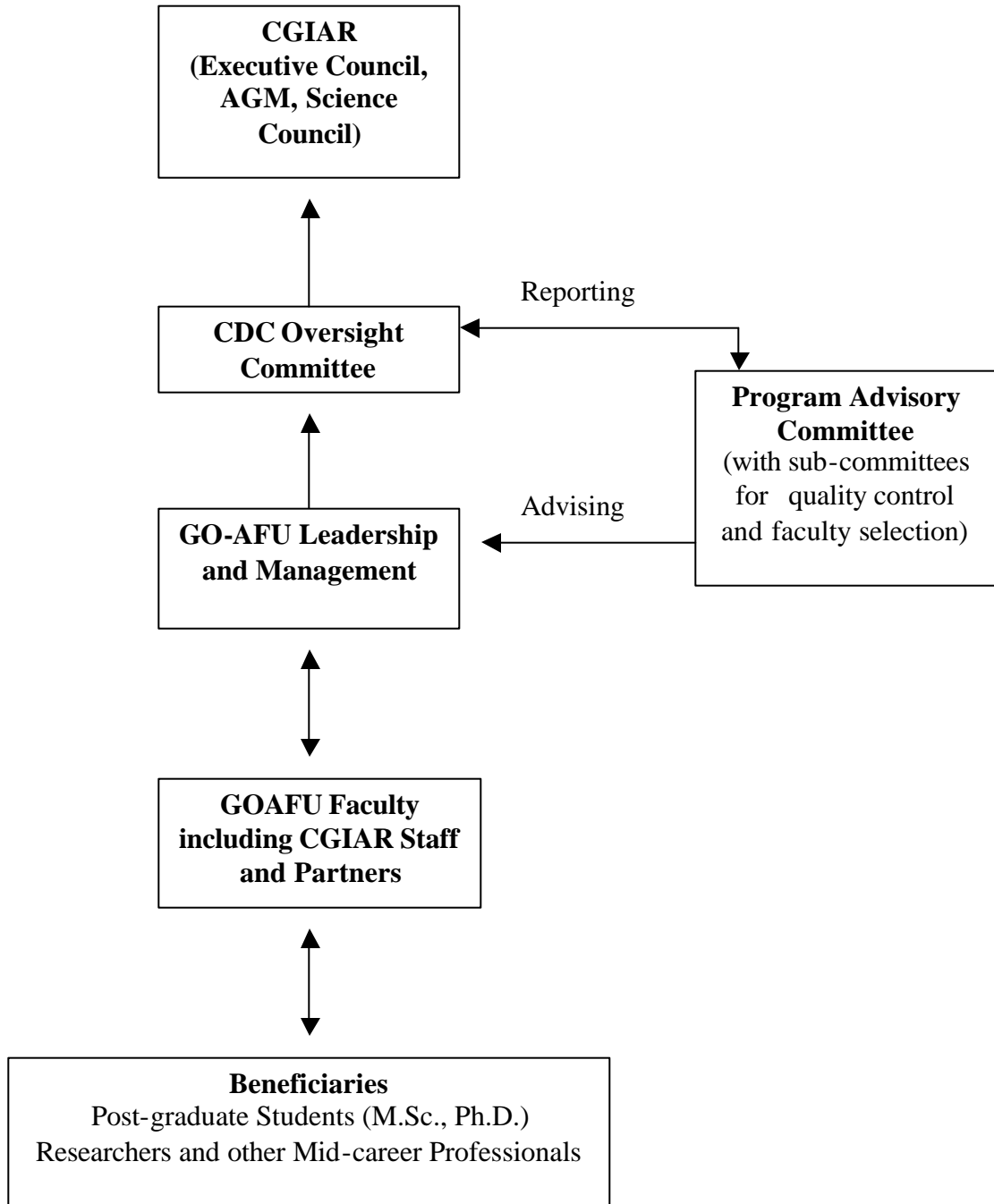
## **BUSINESS PLAN**

Achieving the objectives of the GO-AFU program will require identifying effective partnerships and coalitions, both within the CGIAR system and with global, regional, and national partners in the developing and developed countries. This section provides a brief description of the program's governance, i.e., the various institutional bodies that will provide guidance, oversight and assistance for the functioning of the GO-AFU, and the program budget.

The establishment of a governance structure for the GO-AFU will be the first task undertaken after the program's inception (see diagram below). A CDC Oversight Committee, composed of about six of the CDC Director Generals, will govern the GO-AFU. This body will have the responsibility of: 1) linking the GO-AFU program to the CGIAR Executive Council and providing feedback on the GO-AFU's operations, (2) appointing a Program Advisory Committee, and (3) providing direct supervision of the GO-AFU Secretariat through its relationship with the Program Director-Rector. The Oversight Committee will also have the task of reporting to the CGIAR Science Council.

A Program Advisory Committee will be created to help set priorities, identify gaps, and suggest course content. It will provide guidance based on monitoring, evaluation, and impact assessment results reported quarterly and through information that GO-AFU generates through its activities. The chairperson of the Program Advisory Committee (PAC) will also submit, along with the Secretariat's Program Director-Rector, the GO-AFU annual report to the CDC Oversight Committee. The PAC will consist of representatives from partner organizations; public and private sector agencies; CG center staff; distance education practitioners; donors; and developing- and developed-country faculty members; global, regional, and national networks and institutions; and nongovernmental organizations. The CDC Oversight Committee will report on the GO-AFU to the CGIAR Executive Council.

## GO-AFU Program Governance Structure



Managing the GO-AFU will require the founding of a Secretariat. The responsibilities of the Secretariat will include developing partnerships with potential collaborators, overseeing the budget, and executing the various activities outlined: coalition building, needs assessment, content creation, course delivery, monitoring and evaluation, and impact assessment. A Program Director-Rector will head the Secretariat. The GO-AFU Secretariat will execute the functions of a university administrative unit while the CG centers will serve as university “departments.” The Program Director-Rector will report to the Director-General of the CG-host center on a regular basis. The Secretariat will also report to the PAC and obtain its advice on a regular basis. With the Director-General of the host center and the PAC Chair, the Program Director-Rector will report to the CDC Oversight Committee. S/he will also be responsible for the management of the Secretariat and maintaining collaboration between the GO-AFU and the CG centers and outside experts, and between the CG and partners institutions. Finally, the Secretariat will be in charge of outreach and communication on the GO-AFU.

Three resource experts will work under the leadership of the Program Director-Rector. One will be an Agricultural Scientist/Program Developer who will serve as a liaison with GO-AFU partners. The second expert, an Agricultural Education Specialist with experience in emerging digital technologies, will address pedagogical issues in the development and delivery of modules, courses, and programs and help adapt materials to the specific distance learning technologies a partner institution possesses. The third expert, an Agricultural Scientist, will be from a CG center and will be a member of the Task Force. The third position will be a rotating one, with a new person occupying it each year. The purpose behind bringing in a new scientist periodically is to have each center’s research and perspective better inform work of the Secretariat. Two research assistants; three administrative positions, three information technology specialists, and an editor will support the Secretariat full time.

At the request of the CDC, a Task Force of CG centers to develop the GO-AFU program has already been established with 23 members from the CG centers, nominated primarily by the center directors (see Appendix 4 for list of members). Within the governance structure, the Task Force will connect the human resources, teaching material, and other resources available in each

CG centers to implement the GO-AFU. Specifically, it will assist in carrying out the activities of needs assessment, coalition building, content creation, course delivery, monitoring and evaluation, and impact assessment. The Task Force will be composed of key training and capacity strengthening staff of the CG centers and approved outside faculty. It will work with the GO-AFU and Expert Group for creating and improving content, and course delivery. In assisting in these activities, and monitoring and evaluation and impact assessment, the members will focus on their respective areas of expertise. The Task Force will also constitute a contact node for the implementation of the GO-AFU's programs. Its members will serve on a rotating basis as one of the agricultural scientists with the GO-AFU Secretariat.

An Expert Group for Quality Control and Faculty Selection will be formed to ensure that the quality of the modules, courses, and curriculum the GO-AFU develops remains high. The Expert Group will be composed of expert sub-groups in the various fields covered by GO-AFU course material and degree programs. These experts will be drawn from both developing and developed countries. The CDC will collect nominations of leaders in academia, and the CGIAR Science Council will manage the formation of the Expert Group. The sub-groups will be constituted annually and based on thematic areas to review the existing curriculum and course materials and their suitability and quality for use by the GO-AFU.

The Expert Group will also select the faculty members to serve on the GO-AFU based on criteria it develops with the assistance of the Program Advisory Committee. Given that the GO-AFU will initially use the existing modules, the researchers involved in preparing and delivering CG-center modules will be considered for the faculty for these modules. The Program Advisory Committee will develop a set of criteria that may require the CG researcher to have experience teaching in a university, developing and offering training courses through the CG centers, or be noted scholars in their field. . In the absence of researchers who can serve as high-quality faculty for existing and future courses, outside experts will be contracted. The Expert Group will also evaluate modules and courses that specialists outside the CG system submit and will determine whether they will be delivered through the GO-AFU.

The GO-AFU will have to obtain accreditation from international standard-setting institutions to have its courses/modules become part of the regular ongoing curricula of established institutions in both the developed and developing countries. This process requires setting high-quality standards for the courses, which in turn will require quality control mechanism for both the course materials and the personnel who will deliver the materials.

A program of this nature will require sound financial support to be initiated and maintained over the next 5 years. While there is considerable interest among the donor community to support such a project, a well-planned fundraising strategy is needed for implementing the activities under the GO-AFU. An initial attempt to identify potential donors were made at the Annual General Meeting in Nairobi in October. A comprehensive budget and a financing plan for the GO-AFU is in Appendix 5.

## **APPENDIX 1 - Selected Institutions Expressing Interest or Agreeing to Participate in the GO-AFU**

### *Institutions in Developing Countries*

Acharya NG.Ranga Agricultural University, Hyderabad, India  
Addis Ababa University, Addis Ababa, Ethiopia  
Alemaya University, Dire Dawa, Ethiopia  
Angiang University, Angiang, Viet Nam  
Association of Deans of Agricultural Economics, China  
Bangladesh Agricultural University, Mymensingh, Bangladesh  
Bangladesh Open University, Gazipur, Bangladesh  
Bunda College of Agriculture, University of Malawi, Lilongwe, Malawi  
Cairo University, Cairo, Egypt  
Caribbean Agricultural Research and Development Institute (CARDI), Trinidad, West Indies  
Collaborative Professional Master's Programme in Agricultural Economics (CPMPAEESA) Initiative, Nairobi, Kenya  
Dr. B.R. Ambedkar Open University, Hyderabad, India  
Eduardo Mondlane University, Maputo, Mozambique  
El Azhar University, Cairo, Egypt  
Hanoi Agricultural University (HAU), Hanoi, Viet Nam  
Hanoi Open University, Hanoi, Vietnam  
Indian Council of Agricultural Research (ICAR), New Delhi, India  
Indira Gandhi Institute of Development Research, Bombay, India  
Indira Gandhi National Open University (IGNOU), New Delhi, India  
Jahangirnagar University, Dhaka, Bangladesh  
Jawaharlal Nehru University, New Delhi, India  
Karnataka State Open University, Karnataka, India  
Korea National Open University, Seoul, Korea  
Kota Open University, Rajasthan, India  
La Molina National Agrarian University, Lima, Peru

Madhya Pradesh Bhoj (Open) University, Madhya Pradesh, India  
Madras School of Economics, Chennai, India  
Makerere University, Kampala, Uganda  
Ministry of Agriculture and Rural Development (MARD), Hanoi, Viet Nam  
Ministry of Food and Agriculture, Accra, Ghana  
Nalanda Open University, Bihar, India  
National Academy of Agricultural Research Management (NAARM), Hyderabad, India  
National Centre for Agricultural Economics and Policy Research (NCAP), New Delhi, India  
National Council of Applied Economic Research, New Delhi, India  
National Institute of Agricultural Economics, Hanoi, Viet Nam  
National Institute of Agricultural Extension Management (MANAGE), Hyderabad, India  
National Institute of Rural Development, Hyderabad, India  
Netaji Subhas Open University, Calcutta, India  
Nong Lam University, Ho Chi Minh City, Viet Nam  
Pakistan Institute of Development Economics, Islamabad, Pakistan  
Payame Noor University, Tehran, Iran  
Polytechnic University of the Philippines, Manila, Philippines  
Sokoine University of Agriculture, Morogoro, Tanzania  
Sukhothai Thammathirat Open University of Thailand, Nonthaburi, Thailand  
Tamil Nadu Agricultural University, Chennai, India  
Tashkent Irrigation Institute, Tashkent, Uzbekistan  
Tashkent State Agrarian University, Tashkent, Uzbekistan  
The African Virtual University (AVU), Nairobi, Kenya  
The Open University of Sri Lanka (OUSL), Nugegoda, Sri Lanka  
The Open University of Tanzania (OUT), Dar Es Salaam, Tanzania  
The University of the Philippines Open University, Laguna, Philippines  
U.P. Rajarshi Tandon Open University, Uttar Pradesh, India  
Universitas Terbuka, Tangerang, Indonesia  
Universiti Tun Abdul Razak (UNITAR), Kuala Lumpur, Malaysia  
University of Agricultural Sciences, Bangalore, India  
University of Dar es Salaam, Dar Es Salaam, Tanzania

University of Dhaka, Dhaka, Bangladesh  
University of Ghana, Legon, Ghana  
University of Indonesia, Depok, Indonesia  
University of Malawi, Zomba, Malawi  
University of Nairobi, Nairobi, Kenya  
University of Natal, Durban, South Africa  
University of Peradeniya, Peradeniya, Sri Lanka  
University of Pretoria, Pretoria, South Africa  
University of the Philippines, Philippines  
University of Zambia, Lusaka, Zambia  
University of Zimbabwe, Harare, Zimbabwe  
Viet Nam Agricultural Science Institute, Hanoi, Viet Nam  
Vietnam National University, Hanoi, Viet Nam  
Vietnam National University, Ho Chi Min City, Viet Nam  
Yashwantrao Chavan Maharashtra Open University, Nashika, India  
Zimbabwe Open University, Harare, Zimbabwe

***Institutions in Developed Countries***

Agricultural University of Norway, south of Oslo, Norway  
Auburn University, United States  
Free University, Amsterdam, Netherlands  
Iowa State University, Iowa, United States  
Kansas State University, Kansas, United States  
Open Learning Australia, Victoria, Australia  
Oregon State University, Oregon, United States  
Royal Veterinary and Agricultural College (KVL), Fredericksburg, Denmark  
Swiss Federal Institute of Technology, Zurich, Switzerland  
Texas A&M University, Texas, United States  
The Commonwealth of Learning, Vancouver, Canada  
The Open University, Milton Keynes, United Kingdom  
Tufts University, Massachusetts, United States

United States Distance Learning Association, Massachusetts, United States  
University of Bonn, Bonn, Germany  
University of British Columbia, Vancouver, Canada  
University of Hohenheim, Stuttgart, Germany  
University of Idaho, Moscow, Idaho  
University of Missouri-Columbia, Columbia, Missouri, United States  
University of Mumbai, Mumbai, India  
University of Nebraska-Lincoln, Nebraska, United States  
University of New England, Armidale, Australia  
University of Phoenix, Arizona, United States  
Virginia Polytechnic Institute and State University, Virginia, United States  
Virtual University at Michigan State University, Michigan, United States  
Washington State University, Washington, United States

### ***CGIAR Institutions***

Centro Internacional de Agricultura Tropical (CIAT), Cali, Colombia  
Center for International Forestry Research (CIFOR), Bogor, Indonesia  
Centro Internacional de Mejoramiento de Maiz y Trigo (CIMMYT), Mexico City, Mexico  
Centro Internacional de la Papa (CIP), Lima, Peru  
International Center for Agricultural Research in the Dry Areas (ICARDA), Aleppo,  
Syrian Arab Republic  
International Crops Research Institute for the Semi-Arid Tropics (ICRISAT), Patancheru, India  
International Food Policy Research Institute (IFPRI), Washington, D.C., United States  
International Institute of Tropical Agriculture (IITA), Ibadan, Nigeria  
International Livestock Research Institute (ILRI), Nairobi, Kenya  
International Plant Genetic Resources Institute (IPGRI), Rome, Italy  
International Rice Research Institute (IRRI), Los Baños, Philippines  
International Service for National Agricultural Research (ISNAR), The Hague, The Netherlands  
International Water Management Institute (IWMI), Colombo, Sri Lanka  
West Africa Rice Development Association (WARDA), Bouaké, Côte d'Ivoire

World Agroforestry Centre (ICRAF), Nairobi, Kenya

WorldFish Center, Penang, Malaysia

***International Agricultural Research Institutions***

Asian Vegetable Research and Development Center, Tainan, Taiwan

International Fertilizer Development Center, Alabama, USA

International Center for Insect Physiology and Ecology, Nairobi, Kenya

**APPENDIX 2 - Timeline for Activities**

<b>Activity</b>	<b>6 months</b>	<b>1<sup>st</sup> Year</b>	<b>2<sup>nd</sup> Year</b>	<b>3<sup>rd</sup> Year</b>	<b>4<sup>th</sup> Year</b>	<b>5<sup>th</sup> Year</b>
Establishment of GO-AFU governance structure	→					
Creation of GO-AFU Secretariat	→					
Coalition Building within CG system	→					
Coalition Building with partners (MOU development)		→				
Needs Assessment	→					
Inventory assessment				→		
Offering of modules				→		
Joint Development of five Master's programs					→	



collaborating university						
Expand joint M.Sc. program			→			
Strengthen and revise course material			→			

### APPENDIX 3 - Program Deliverables and Lead Institutions for Activities

Activity	Lead Partner	6 months	1 <sup>st</sup> Year	2 <sup>nd</sup> Year	3 <sup>rd</sup> Year	4 <sup>th</sup> Year	5 <sup>th</sup> Year
Preparation & adoption of by-laws & governance manual	IFPRI, CDC, CG Centers	X					
Employment of staff, development of operational guidelines for Secretariat management	IFPRI, Program Advisory Committee	X					
Documentation of agreements with CG centers & external experts for producing course & program materials	GO-AFU, CG Centers, External experts	X					
MOU development with partner institutions	GO-AFU, National partners	X	X	X	X	X	X

Needs assessment study	GO-AFU, Independent researchers	<b>X</b>					
Inventory assessment study	GO-AFU, CG Centers		<b>X</b>	<b>X</b>			
Course modules for developing-country students & professionals	GO-AFU, National partners		<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>
Joint M.Sc. degree with partner universities	GO-AFU, National partners				<b>X</b>	<b>X</b>	<b>X</b>
Monitoring and evaluation report	GO-AFU, CG researchers		<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>
Impact assessment study	Advisory Committee, GO-AFU, National Partners			<b>X</b>			<b>X</b>
Program gap assessment study	Advisory Committee, GO-AFU, National Partners			<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>

Feasibility study on funding and sustainability	GO-AFU, CG Centers, National Partners				<b>X</b>		
Translation of material into other languages	GO-AFU			<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>
Joint Ph.D.. program with collaborating universities	GO-AFU, National Partners					<b>X</b>	<b>X</b>
Expansion of M.Sc. program	GO-AFU, National Partners			<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>
Strengthened and revised course material	GO-AFU, National Partners			<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>

## APPENDIX 4 - GO-AFU Taskforce Members

<b>CG CENTER</b>	<b>INDIVIDUAL</b>
IRRI	Mark Bell
CIMMYT	
ICRISAT	V. Balaji Rex Navarro
World Fish	Modadugu V Gupta
ICRAF	August Temu Jan Beniest
IITA	NA
ILRI	Yilma Jobre Veryl Adell
WARDA	Aline Lisette-Vidal
IPGRI	Elizabeth Goldberg Issiaka Zoungrana
IWMI	Shanthi Weerasekera
ICARDA	Samir Ahmed
IFPRI	Joachim von Braun Suresh Babu Zenete Franca Valerie Rhoe
CIFOR	Yemi Keterere
CIP	Thomas Zschocke
CIAT	Edith Hesse Rafael Posada
CGIAR Secretariat	Manuel Lantin

**APPENDIX – 5 GLOBAL OPEN AGRICULTURE AND FOOD UNIVERSITY - A CGIAR INITIATIVE**

**CONSOLIDATED BUDGET AND FINANCING PLAN FOR 5 M.SC. PROGRAMS**

**Indicative Budget**

<b>Cost Categories</b>	<b>Year 1</b>	<b>Year 2</b>	<b>Year 3</b>	<b>Year 4</b>	<b>Year 5</b>	<b>Total Cost</b>	<b>Per Student Cost</b>
<b>Course Development/ Course Delivery</b>	<b>\$2,332,465</b>	<b>\$3,737,090</b>	<b>\$1,509,624</b>	<b>\$3,476,139</b>	<b>\$4,244,439</b>	<b>\$15,299,756</b>	<b>\$1,912</b>
Coalition-building	\$50,240	\$0	\$0	\$0	\$0	\$50,240	\$6
Needs Assessment	\$96,000	\$0	\$0	\$0	\$0	\$96,000	\$12
Course Development	\$1,402,025	\$153,350	\$0	\$0	\$0	\$1,555,375	\$194
Course Delivery	\$613,350	\$3,154,700	\$571,370	\$2,555,685	\$3,295,385	\$10,190,490	\$1,274
M&E	\$0	\$0	\$19,614	\$1,814	\$30,414	\$51,841	\$6
Conferences/ Workshops	\$170,850	\$429,040	\$918,640	\$918,640	\$918,640	\$3,355,810	\$419
<b>International Travel</b>	<b>\$141,310</b>	<b>\$170,740</b>	<b>\$130,400</b>	<b>\$130,400</b>	<b>\$109,700</b>	<b>\$682,550</b>	<b>\$85</b>
<b>Facilities</b>	<b>\$245,000</b>	<b>\$42,000</b>	<b>\$42,000</b>	<b>\$92,000</b>	<b>\$42,000</b>	<b>\$463,000</b>	<b>\$58</b>
<b>Communication/ Postage</b>	<b>\$24,000</b>	<b>\$24,000</b>	<b>\$24,000</b>	<b>\$24,000</b>	<b>\$24,000</b>	<b>\$120,000</b>	<b>\$15</b>
<b>Service Centers Charges</b>	<b>\$210,762</b>	<b>\$234,180</b>	<b>\$210,762</b>	<b>\$210,762</b>	<b>\$210,775</b>	<b>\$1,077,241</b>	<b>\$135</b>
<b>Labor and Fringe benefits</b>	<b>\$1,086,332</b>	<b>\$1,148,370</b>	<b>\$1,531,888</b>	<b>\$1,593,151</b>	<b>\$1,656,921</b>	<b>\$7,016,663</b>	<b>\$877</b>
Program Secretariat Staff:	\$569,697	\$604,445	\$615,134	\$639,734	\$665,341	\$3,094,350	\$387
Fringe Benefits	\$314,473	\$335,084	\$339,554	\$353,133	\$367,268	\$1,709,511	\$214
Non-Secretariat Staff	\$202,163	\$208,842	\$577,200	\$600,285	\$624,312	\$2,212,802	\$277
<b>Total Direct Cost</b>	<b>\$4,039,869</b>	<b>\$5,358,971</b>	<b>\$3,448,674</b>	<b>\$5,526,452</b>	<b>\$6,287,834</b>	<b>\$24,661,800</b>	<b>\$3,083</b>
<b>Total Indirect Cost</b>	<b>\$574,544</b>	<b>\$761,246</b>	<b>\$479,371</b>	<b>\$783,701</b>	<b>\$894,475</b>	<b>\$3,493,336</b>	<b>\$437</b>
<b>Total Cost</b>	<b>\$4,614,413</b>	<b>\$6,120,217</b>	<b>\$3,928,045</b>	<b>\$6,310,153</b>	<b>\$7,182,309</b>	<b>\$28,155,136</b>	<b>\$3,519</b>

**APPENDIX - 5**

**CONSOLIDATED BUDGET AND FINANCING PLAN FOR 5 M.SC. PROGRAMS (CONT'D)**

<b>Financing Plan</b>	<b>Year 1</b>	<b>Year 2</b>	<b>Year 3</b>	<b>Year 4</b>	<b>Year 5</b>	<b>Total Cost</b>	<b>Per Student</b>
<b>WB-GPG</b>	\$1,500,000	\$1,500,000	\$1,500,000	\$1,500,000		\$6,000,000	<b>\$750</b>
<b>CG traditional donors</b>	\$500,000	\$500,000	\$500,000	\$500,000		\$2,000,000	<b>\$250</b>
<b>Govts/ Science &amp; Education</b>	\$1,400,000	\$2,000,000	\$1,000,000	\$2,000,000	\$2,500,000	\$8,900,000	<b>\$1,113</b>
<b>Foundations</b>	\$1,300,000	\$2,200,000	\$1,000,000	\$2,000,000	\$2,500,000	\$9,000,000	<b>\$1,125</b>
<b>Total Funding</b>	<b>\$4,700,000</b>	<b>\$6,200,000</b>	<b>\$4,000,000</b>	<b>\$6,000,000</b>	<b>\$5,000,000</b>	<b>\$25,900,000</b>	<b>\$3,238</b>
<b>Tuition</b>		\$4,000,000		\$4,000,000	\$8,000,000	\$16,000,000	<b>\$2,000</b>