

IASIS INTERACTIONS REPORT

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May, 1989

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1.0 INTRODUCTION. A set of interactions has developed between the Institute for Advanced Study in the Integrative Sciences (IASIS) and a number of outside organizations. Most of these organizations are international. We will call these interactions the **IASIS Interactions Program**. While this suggests some kind of formal program, what has happened here has merely grown out of a sequence of events, rather than any deliberate intent to create a program. Nonetheless the commonality in what is going on is much like what would exist in some formal program, so it may be appropriate to identify it in that way.

In any enterprise, it is always good from time to time to document what has been happening. This helps assess the activity and may also have some benefits that cannot be foreseen in detail at present.

The organization of the material to follow is simply for the purpose of making it easier for the reader to access selected parts that might be of special interest.

2.0 BACKGROUND. IASIS is a part of George Mason University (GMU). It was the successor to the Institute for Information Technology (IIT). The latter was originally expected to be a part of the Center for Innovative Technology (CIT). It was also anticipated that there would be substantial internal interaction at GMU with various Schools and Departments. While some of this kind of interaction did develop, the general results were not very satisfactory, possibly because of the way in which the CIT evolved. The evolution of the CIT was not along the anticipated lines. After two years of attempting to collaborate with that organization, the IIT became IASIS.

2.1 The Center for Interactive Management. The primary sub-organization within IASIS was the Center for Interactive Management (CIM). This organization was started at the University of Virginia, with Dr. John N. Warfield as the founding Director, and with Dr. Alexander Christakis as the Associate Director. CIM's physical facilities at the University of Virginia became available for its use in April of 1982. However some administrators there were hostile to its survival and it was determined in mid-1983 that CIM could not succeed in that environment. It continued to operate there to fulfill its contract obligations until June of 1984. At that time it moved to GMU where it was re-established under IIT and, subsequently, became part of IASIS.

At GMU there was no obvious administrative hostility toward CIM until February of 1988. At that time, the Acting Provost indicated that "no one wants what the Center is selling". Requests to permit CIM to rent additional space using income from contracts were denied. This was a sharp and unexpected change from the previous relationships between CIM and GMU. While CIM had reached a written understanding with the previous Provost concerning its financial obligations and its financial plans for several years into the future, the Acting Provost showed no

knowledge of this. (He did, however, later agree to honor it for a limited time, after he became aware of it.)

Accordingly initial planning was begun on a contingency basis to look elsewhere for a place to house the Center. At the same time the Center honored its existing agreement to the letter. Data were accumulated to show clearly that CIM's contract research and service activities were growing steadily, both in terms of numbers of sponsors and in terms of income.

Subsequently certain events took place involving very dubious procedural aspects that were reminiscent of previous hostile actions and observations. As one example, CIM became informed that one GMU administrator had advised a corporate president not to collaborate in dedicating new space to CIM because CIM didn't know what it was doing. As a result, an important addition to space and capability was denied. Since that time the corporate executive has been made aware of the unreliability of the information supplied to him, but by the time this occurred, the additional space had already been tentatively arranged elsewhere, and was finally arranged in writing as will be indicated below.

During the same period, a number of important sponsors wrote letters to GMU lauding the professionalism and quality of work done by CIM. Documentation was made available in a report to the new Provost.

Early in the fall of 1988, the Director and Associate Director of CIM tendered their resignations effective June 30, 1989. Shortly thereafter negotiations were commenced with a long-established New York City engineering and consulting firm which culminated in the incorporation of a new organization, the American Institute for Interactive Management (AIIM), with Dr. Christakis as President and Dr. David Keever as Vice President. The first component of AIIM was designated to be the Center for Interactive Management.

A lease was signed in May, 1989, whereby AIIM and CIM would locate in the Fair Lakes part of Fairfax County, with operations to begin in July of 1989.

The ability of CIM to get outside financing to continue its operations, from a corporation with over 70 years of experience in providing professional services, provided the final evidence of the inaccuracy of statements made by two uninformed administrators at GMU.

Also moving to the Fair Lakes facility are four graduate students who gained masters degrees from GMU. The loyalty displayed by these students is further testimony to the lack of substance associated with statements made and actions taken by the two administrators or their aides who will remain nameless in this document.

As this move takes place, the work load on IASIS that was involved with the administration of CIM will diminish. This is another reason why it is timely to review the IASIS Interactions Program.

2.2 IASIS Publications Activity. One of the reasons for the evolution of the IASIS Interactions Program is the **IASIS publications activity**.

Research has been going on for over 20 years on how to make people productive in collaborative work involving complex issues. This research has continued even though the people involved have several times had to move in order to be able to continue to carry it out.

At GMU, considerable progress has been made in the research. The written products have been described in an "**Annotated Bibliography of IASIS Publications**". This document has been updated several times and has been rather widely distributed.

So many requests began to be received, both in written form and by visitors and students, for publications associated with this research, that it became necessary to take defensive measures. With the cooperation of the **Fenwick Library**, comprehensive materials were informally cataloged, and were placed in the Reserve Room of the Fenwick Library. Mrs. John Warfield and other volunteers spent many hours putting this material in form to permit relatively easy access to the materials. They worked with Mr. Levy and others in Fenwick Library to develop a carefully worded written procedure that could be incorporated in the Bibliography, telling people how they could get copies of the documents in the so-called "**IASIS File**" by asking their own library to forward a written request to Fenwick Library.

Most of the research results have also been presented at various conferences in the U. S. and Europe.

Also Dr. Warfield agreed to serve as the founding editor of the Pergamon journal Systems Research. Duties began in 1982 and continued to the present time. This journal is the official journal of the International Federation for Systems Research, the **IFSR**. This Federation which, in 1982, had only three member societies, now has about 16 of them located around the world.

By serving as Editor-in-Chief, Dr. Warfield has been able to become familiar with much of the conceptual work being done around the world to form, over time, a science of systems. He has also become acquainted with many of the key researchers in this field. They, in turn, have become familiar with his work. A number of them have incorporated some of his work in their own research. His work has benefited greatly during the past few years by the activities of CIM. In effect, it has been the laboratory in which theoretical and methodological concepts have been tested, and which has provided a solid empirical basis for the foundations of a new science.

The new science, called the **Science of Generic Design**, has been organized and documented during the past two years in a manuscript now being evaluated for publication in book form. This work integrates much of what appears in bits and pieces in the papers located in the Fenwick Library in the IASIS File.

The work done in CIM, largely at GMU, has furnished the only extensive documentation that we know of involving data taken from the work of numerous groups on a wide variety of complex issues. These data show very clearly two of the major reasons why it is so difficult to get complex issues resolved, even when people are highly inclined to make that happen. The data strongly support the use of the processes that have become a key feature of the CIM activity.

2.3 Prior Interactions. While many of the interactions to be reported in this document have accrued during the period spent at GMU, some of them had their origins well before that time. For example, interactions with **Tata Corporation** in India began in 1978, and recent interactions with the **government of Ghana** had their origins in relationships that began in the early 1960s. Interactions that have just begun with **Hampton University** had their origins in relationships that began in the late 1970s.

3.0 **INTERNATIONAL INTERACTIONS.** International interactions are far from uniform in extent, trends, potential consequences, etc. However it is important to present a fairly complete picture, because this gives a proper perspective rather than one distorted by selective reporting. These reports will be organized by continent and, within a continent, by country.

Table 1 shows our major contacts in Africa, Asia, and Australia. This table shows the organization with which the contact(s) is affiliated, the location of the organization, and the individual contact. We also portray a scheme to show the progress of our interactions. The numbers 1, 2, 3, 4, 5, and 6 were arrayed after each entry. Then certain numbers were written over with a black dot. The key to this shorthand representation is shown at the bottom of **Table 1**. If all the numbers are visible, it means that the contact has been quite limited, while if none of them are visible, it means that the contact has adopted essentially all of the IASIS research results and successfully applied them. A Y in the last column means that the contact visited IASIS (or its predecessor) to learn first hand about the research results (or that the contact sent a representative). An N means that no visit has been made to IASIS or its predecessor. The visits in question range from a few hours to a year.

Table 2 shows contacts in Europe and North America, with the same arrangement of the information as for **Table 1**. **Table 3** shows contacts in South America.

The following paragraphs highlight a few of the interactions, namely those that are most active at the time of writing of this document, and/or which may lead to formal projects some time in the future.

AFRICA

Ghana

Technology Transfer Centre
Council for Scientific and
Industrial Research

Accra
Accra

Dr. Ayiku
Dr. Butler

1 2 3
4 5 6 VISIT?
● ● ● Y
4 5 6

ASIA

China

Huazhong Univ. of Science
and Technology
Wright State University

Wuhan Prof. Bihui Zhang
Dayton, OH Prof. Li Da Xu

● ● ● N
4 5 6
● ● ● N
4 5 6

India

Tata Consultancy, Systems
Engineering & Cybernetics
Centre

Hyderabad Prof. P. N. Murthy
Mr. S. K. Batra

● ● ● Y
● ● ●

GeneSys Consultants

Bangalore Mr. G. S. Chandy

● ● ● N
● ● ●

Bombay Metropolitan Region
Development Authority

Bombay Dr. V. N. Patkar

● ● ● N
● ● ●

Rural Technology Centre
Gandhigram Rural Institute

Tamil Nadu Dr. T. Karunakaran

● ● ● N
4 5 6

Systems Research Institute

Pune Mr. J. G. Krishnayya

● ● ● 3 N
4 5 6

Centre for Management
Studies, IIT

New Delhi Dr. Sushil

● ● ● N
4 5 6

Operations Research Unit
Council for Scientific and
Industrial Development

New Delhi Prof. A. Ghosal

● ● ● Y
4 5 6

Centre for Energy, Envir-
onment, and Technology
Administrative Staff Coll-
ege of India

Hyderabad Dr. B. Bowonder

● ● ● N
4 5 6

Japan

Systems Development Lab
Hitachi, Ltd.

Kawasaki Mr. Koichi Haruna

● ● ● Y
● ● ●

Dept. of General System
Studies, Univ. of Tokyo

Tokyo Dr. R. Hirasawa

● ● ● N
4 5 6

Dept. of Electrical Eng.
Hokkaido University

Sapporo Prof. Azuma Ohuchi

● ● ● Y
4 5 6

Dept. of Electrical Engr.
Vanderbilt University

Nashville Dr. K. Kawamura

● ● ● Y
4 5 6

AUSTRALIA

School of Management
Deakin University

Victoria Dr. W. H. Weekes

● ● ● N
4 5 6

KEY TO NUMERICAL INDICATORS. If the number is written over with a black dot, it signifies the following:

- | | |
|--------------------------------|--------------------------------------|
| 1 - AWARE OF IASIS WORK | 2 - EXPRESSED INTEREST IN IASIS WORK |
| 3 - TOOK A LEARNING INITIATIVE | 4 - DID LOCAL TESTING |
| 5 - INSTALLED IN INSTITUTION | 6 - CAN SHOW SUCCESSFUL APPLICATION |

KEY TO LETTER INDICATORS. A Y IN THE LAST COLUMN INDICATES THAT A VISIT WAS MADE TO THE INSTITUTE TO GET FIRST-HAND INFORMATION

AN N IN THE LAST COLUMN INDICATES THAT NO VISIT WAS MADE

EUROPE

| | | | | 1 4 | 2 5 | 3 6 | VISIT? |
|---------------------|---|-----------|---|--------|--------|--------|--------|
| <u>Austria</u> | School of Medicine University of Vienna | Vienna | Dr. Robert Trappl | ● | 2 | 3 | N |
| | | | | 4 | 5 | 6 | |
| <u>England</u> | Pergamon Press | Oxford | Mr. J. E. Gilgunn-Jones | 1 | 2 | 3 | N |
| | | | | 4 | 5 | 6 | |
| | City University of London | London | Mr. Ross Janes | 1 | 2 | 3 | Y |
| | | | | 4 | 5 | 6 | |
| <u>France</u> | College de Systemique de AFCET | Paris | Dr. Robert Vallee | 1 | 2 | 3 | N |
| | | | | 4 | 5 | 6 | |
| | Polytechnic of France | Paris | Dr. J-P le Torzey | ● | ● | ● | Y |
| | | | | 4 | 5 | 6 | |
| | Faculty of Applied Economics Univ. of Aix-Marseille | Marseille | Dr. J. L. Le Moigne | 1 | 2 | 3 | N |
| | | | | 4 | 5 | 6 | |
| <u>Greece</u> | University of the Aegean | Athens | Dr. C. Sophoulis Dr. I. Tsivakou | ● | ● | ● | Y |
| | | | | 4 | 5 | 6 | |
| | Council of State | Athens | Dr. M. De Claris Mr. J. Kapelouzos | ● | ● | ● | Y |
| | | | | 4 | 5 | 6 | |
| <u>Hungary</u> | Bureau of Systems Analysis | Budapest | Dr. Istvan Kiss | ● | ● | ● | Y |
| | | | | 4 | 5 | 6 | |
| <u>Italy</u> | E. N. E. A. | Rome | Dr. Giovanni Scurricini | ● | ● | ● | N |
| | | | | 4 | 5 | 6 | |
| <u>Netherlands</u> | Institute of Androgology Univ. of Amsterdam | Amsterdam | Dr. G. de Zeeuw | ● | ● | 3 | N |
| | | | | 4 | 5 | 6 | |
| <u>Poland</u> | Polish Academy of Sciences | Warsaw | Dr. W. Gasparski | ● | ● | ● | N |
| | | | | 4 | 5 | 6 | |
| <u>Portugal</u> | Society of Philosophy and Association for Communication | Lisbon | M. R. Prata Dias | ● | ● | 3 | N |
| | | | | 4 | 5 | 6 | |
| <u>Spain</u> | SESGE | Madrid | Dr. Raphael Delgado | ● | ● | 3 | N |
| | | | | 4 | 5 | 6 | |
| <u>Switzerland</u> | Dept. of Econometrics Univ. of Geneva | Geneva | Dr. Emilio Fontela Dr. Manfred Gilli | ● | ● | ● | Y |
| | | | | 4 | 5 | 6 | |
| <u>West Germany</u> | Fraunhofer Institute | Stuttgart | Dr. Klaus Kornwachs | ● | ● | ● | Y |
| | | | | 4 | 5 | 6 | |
| | Gesellschaft fur Mathematik und Datenverarbeitung | Bonn | Dr. Norbert Szyperski | ● | ● | ● | N |
| | | | | 4 | 5 | 6 | |

NORTH AMERICA

| | | | | | | | |
|-----------------|---|-----------------|--------------------------------|---|---|---|---|
| <u>Canada</u> | Simon Fraser Univ. Business Administrat. | Burnaby, BC | Dr. Gervase Bushe | ● | 2 | 3 | N |
| | | | | 4 | 5 | 6 | |
| <u>Mexico</u> | Polytechnic Inst. of Mexico | Mexico City | Prof. J. L. Elohim | ● | ● | ● | Y |
| | | | | 4 | 5 | 6 | |
| <u>U. S. A.</u> | American Univ. | D. C. | Prof. Roger Volkema | ● | ● | ● | Y |
| | | | | 4 | 5 | 6 | |
| | Defense Syst. Mgt. College | Ft. Belvoir | G. Wierzbyski, Provost | ● | ● | ● | Y |
| | | | | 4 | 5 | 6 | |
| | Hampton University | Hampton | Dr. A. Cannon Dr. D. Anyiwo | ● | ● | ● | Y |
| | | | | 4 | 5 | 6 | |
| | Howard University | D. C. | Dr. T. Gill Dr. A. Maclin | ● | ● | ● | Y |
| | | | | 4 | 5 | 6 | |
| | Kent State Univ. | Kent, OH | Dr. Carl Moore | ● | ● | ● | Y |
| | | | | 4 | 5 | 6 | |
| | Lorain County Comm. College | Elyria, OH | Mr. James Kunde | ● | ● | ● | N |
| | | | | 4 | 5 | 6 | |
| | University of Dayton | Dayton, OH | Bro. Raymond Fitz | ● | ● | ● | N |
| | | | | 4 | 5 | 6 | |
| | University of Northern Iowa | Cedar Falls, IA | Dr. R. Waller | ● | ● | ● | Y |
| | | | | 4 | 5 | 6 | |
| | Univ. of So. Califor. | Los Angeles, CA | Dr. P. Gardiner | ● | ● | ● | N |
| | | | | 4 | 5 | 6 | |
| | Vanderbilt University | Nashville, TN | Dr. K. Kawamura | ● | ● | ● | Y |
| | | | | 4 | 5 | 6 | |
| | Wright State Univ. | Dayton, OH | Dr. L. D. Xu | ● | ● | ● | N |
| | | | | 4 | 5 | 6 | |

SOUTH AMERICA

Argentina

Argentine Systems Buenos Aires Dr. C. Francois
Society

Sacramento State Sacramento, CA Dr. J. P. Van Gigch
Univ.

Brazil

Univ. of Sao Paulo Sao Paulo Mr. J. T. C. Wright
Futures Research Group

Ecuador

International Quito Mr. A. Morales Rivas
Economic R&D Ctr

Venezuela

Univ. of the Merida Prof. G. Tonella
Andes

| 1 | 2 | 3 | VISIT? |
|---|---|---|--------|
| 4 | 5 | 6 | N |
| 4 | 5 | 6 | Y |
| 4 | 5 | 6 | N |
| 4 | 5 | 6 | N |
| 4 | 5 | 6 | Y |

3.1 Africa. Our African contacts are in **Ghana**. They are with the Ghana Council for Scientific and Industrial Research (**CSIR**). The Director of the Council is Dr. Butler. Within CSIR there is the Technology Transfer Centre (**TTC**), directed by Dr. Moses N. B. Ayiku. Through them, we have met with a number of highly-placed executives in Accra, including heads of government agencies, educational institutions, management training organizations, and financial institutions, as well as entrepreneurs in the private sector.

We are collaborating in the development of Ghanaian infrastructure for enhancing private enterprise, upgrading the use of technology, coordinating various sectors, and protecting the environment. We are also helping to develop new facilities and processes for management oversight and administration, with emphasis on understanding and monitoring the system to help assure effectiveness.

In order to facilitate this, we are in intermittent contact with the **Embassy of Ghana** in Washington, D. C. which, among other things, provides assistance in communications with Accra.

3.2 Asia. In Asia we have contacts in China, India, and Japan.

China. Our principal Chinese contact is Professor Bihui Zhang, with contact being made through Professor Li Da Xu of Wright State University. This contact is professional in nature. Professor Zhang serves on the International Editorial Advisory Board of Systems Research and also is engaged in translating into Chinese the book Societal Systems: Planning, Policy, and Complexity (by J. N. Warfield) with the assistance of Professor Xu. Professor Xu has agreed to participate in the **Ecuador project** (to be described later), if this project materializes.

India. We have quite a few contacts in India. At present, **Mr. Chandy** of GeneSys Consultants is working up a training project for software development using the processes developed at IASIS. He is being assisted in this effort by an Indian division of Deloit, Haskins, and Sells, an American management consulting firm, and by some Indian governmental agencies.

Dr. Bowonder shares Dr. Warfield's interests in taking steps to correct disasters stemming from invasive technologies. Recently he has completed a study of the **Bhopal** disaster. He is also in touch with Professor **Ostberg** in Sweden, who is doing similar research.

Japan. We also have numerous contacts in Japan. Only the most active are shown in Table 1. **Dr. Kawasura** of Vanderbilt University has been a go-between, and presently is visiting in India with two of our contacts, including Mr. Chandy.

Dr. Hirasawa chairs the world's largest general systems studies program at the University of Tokyo. We are trying to keep in touch with him in the hopes that his program will serve as a challenge to American

universities who keep ignoring this important area. Dr. Ohuchi of Hokkaido has extended some of Dr. Warfield's work in algorithm development for relational logic, and has presented work on complexity metric studies of high-level software languages, along the line developed by Dr. Warfield earlier.

3.3 Australia. Dr. Weekes has been following our work in interactive management and system design, and has tried several times without success to find a way to import the processes to Australia. Earlier work using these processes was carried out by Dr. Carss at Brisbane in the College of Education.

3.4 Europe.

Austria. We maintain contact with Dr. Robert Trappl in Vienna, who sustains the secretariat of the IFSR.

England. Similarly, we maintain contact with Pergamon Press, the publisher of Systems Research.

At City University of London, we maintain contact with our former Fulbright visitor, Mr. Ross Janes, who operates an Interactive Management Unit at City University.

Greece. The University of the Aegean will hold its second annual workshop on generic design science late in 1989. The University hopes to start a center there, but has been delayed by events in Greek politics. Meanwhile, the Council of State of Greece (analogous to the U. S. Supreme Court) has been studying our research results carefully. It remains to be seen what the outcome of this study will be.

Hungary. Interest has been expressed in the possibility of starting a center in Hungary. However this interest is in abeyance at present, due to poor planning of a proposed meeting in Moscow in August.

Italy. Considerable interest exists in trying to find a way to make Italian democracy work. This interest has been heightened by severe impacts of the fallout from the Chernobyl disaster, which has had significant impacts in both Italy and Greece. Tentatively, a meeting is envisaged in Rome in April of 1990 to deal with this subject.

Portugal. Plans have been made to present several papers on group decision support at a meeting in Lisbon in September of 1989. These would be given by Dr. Warfield, Dr. Keever, Mr. Wright of Brazil, Mrs. Tsivakou of Greece, and Mr. Janes of England.

Spain. Plans have been made also to present a paper on development in developing countries, jointly with Dr. Ayiku of Ghana, in the first meeting of the **Spanish Systems Society**, in November of 1989. This paper will present the proposed organization of the Ghanaian infrastructure, and show how governmental officials can make necessary arrangements for coordinating their work.

Switzerland. Informal agreement has been reached with Professors **Fontela** and **Gilli** of the University of Geneva to work on the proposed **Ecuador project** (see below), if it can be successfully developed.

West Germany. It hasn't been feasible to follow what is going on in West Germany. However we know that a book on our work was published by the director of the **Gesellschaft für Mathematik und Datenverarbeitung** in Bonn, and that software based on our work was written at the **Fraunhofer Institute** in Stuttgart. Hopefully we will be able to review what is going on there some time in the future.

3.5 North America. It would be logical for most of our work to involve North America and especially Virginia. Regrettably it appears that scholars on other continents are much more aggressive in discovering and applying our work. In fact, we have to be very aggressive to get people in the U. S. to pay much attention to our work, with some exceptions.

Canada. Professor **Bushe** of Simon Fraser University has done some outstanding research that illustrates why it is so hard to get our work broadly recognized in the U. S. A. While his work doesn't deal with ours directly, he has shown why it is virtually impossible to get major U. S. manufacturers to install statistical quality control at the level promoted in Japan by **Professor Deming** and **Dr. Juran**. These have to do with the culture of American corporations. The very factors that appear in these organizational cultures are the same ones that prevent U. S. engineering and business schools and federal research agencies such as the National Science Foundation from taking seriously what we do. If anyone who reads this is interested in this subject, I will be happy to elaborate on Professor **Bushe's** findings and other related aspects.

Mexico. We maintain a dialog with **Prof. Elohim Jiminez Lopez** of the Polytechnic Institute of Mexico and his associates in the Mexican Systems Society. This group of scholars is faced with cultural problems in industry and government that are surprisingly similar to those found in the U. S. A.

U. S. A. Without going into detail on the interactions within the U. S. A., we will generalize and say that they involve individuals who are aware of the need for significant improvements in management and design of large systems, and they have taken and are taking steps to try to contribute to bringing about such improvements. One of our most recent contacts is with the **Lorain County Community College** in Ohio, where **Mr. Jim Kunde** is providing leadership in what is called "board mentoring" and in "issue focus" discussions and training. **Mr. Kunde** was formerly a very successful City Manager in Dayton, Ohio, and in recent years has been working collaboratively with the Kettering Foundation and **Dr. Carl Moore** of Kent State University to try to enhance public administration in many parts of this country. **Dr. Moore** published a book recently detailing his use of our research results.

3.6 South America. We have **professional contacts** related to systems research in Argentina and Venezuela, while the contacts in Brazil and Ecuador are **project-oriented**.

Brazil. With assistance from the **IBM Science Center** in Brasilia, which wrote software based on our research for use by IBM and by the **University of Sao Paulo**, a Futures Research Group has been active for about ten years, using our methodologies. They continue to do this successfully, but we are not able to maintain tight contact. It is hoped to review progress at the Lisbon meeting in September, 1989, where **Mr. Wright** of Sao Paulo and **Dr. Warfield** are scheduled to present research papers to an audience studying the connection or lack thereof between **philosophy** and **information technology**.

Ecuador. For about two years, communications have gone back and forth between IASIS and the **International Economic R&D Center** in Quito. There **Mr. Morales Rivas** has been leading intensive research in how to restore the economies of the debt-burdened developing nations. With our rather extensive help, he has been converging on a proposal which he hopes to market to the World Bank, International Monetary Fund, and possibly other agencies. We have referred to this project as the **Ecuador project** earlier in this document. As is often the case, those in power are not prepared to listen to serious scholars. Still we believe that the trends in government around the world are away from insensitive and authoritarian regimes toward responsible democratic regimes who understand the importance of applying a higher level of scholarship in administrative practice.

Present plans are that the Ecuador project will be administered from IASIS, with collaboration of some of the associates mentioned in this document, including Professors **Fontela**, **Gilli**, and **Xu**, among others. Professor Fontela has faculty appointments both at the University of Geneva and at a university in Madrid. His native tongue is Spanish, which will be very helpful in communications with Ecuador. Steps have been taken to try to gain additional collaboration within GMU, but the prognosis is not outstanding. The instant gratification mode is very prominent in this hemisphere, with people looking for immediate payoffs in distress areas where history shows the difficulty of making instant progress.

If the Ecuador project materializes, it will have strong implications for Ghana and other developing nations as well.