Department of Agricultural and Resource Economics
University of California, Davis

FAO, Research and the CGIAR

by

Alex F. McCalla

Working Paper No. 07-007

March 2007

Giannini Foundation of Agricultural Economics

FAO, Research and the CGIAR

By Alex F. McCalla,
Professor Emeritus, Department of Agricultural and Resource Economics,
University of California, Davis.

1. Introduction

In 1960 the world's population reached 3 billion people, increasing from 2 to 3 billion in just 33 years. The second billion had taken 102 years (1825-1927) and the first billion from the beginning of time. According to Evans (1998), virtually all of the increased food production needed to feed the first two billion came from expanded area under production. And despite pockets of scientific agriculture in Western Europe and Japan in the 19th century, the third billion was likewise primarily fed by a 40% increase in area and from the freeing of 0.13 billion hectares, previously producing fuel for horses, for food grain production. "Between 1870 and 1920, while world population increased by 40%, the arable area increased by 75% due to extensive land clearing, particularly in North America and Russia."(Evans, p.90).

It is only after 1960 that increasing yields per hectare became a major source of increase in food supply. Adding the fourth billion took just 15 years (1960-1975), the fifth billion arrived in 11 years (1975-1986) and the sixth in 13 years (1986-1999). The vast majority of the increase in food production needed to feed this doubling of world population in less than 40 years came from increased productivity, as modest increases in area since 1975 were more than offset by loses of productive land to other uses and soil degradation. Clearly the application of science to agriculture had research roots dating back at least to von Liebig in the mid 19th century, but it was increasing investments in applied research in developed countries in the first half of the 20th century that led to the genetic and chemical revolution that drove agriculture in the second half of the 20th century. But in 1945, when FAO was formed, the dominant concern was food and nutrition problems in Europe which were seen as a food production problem caused by lack of land and farmer's using primitive methods. This despite the fact that Louis Rasminsky's important 1930's study on nutrition in Europe concluded that the problem of terrible malnutrition in Europe was not a problem of production, but of bad policies. (Muirhead, 1999)

Thus as noted in Chapter two, FAO's initial and primary focus was on collecting, analyzing, interpreting and disseminating ***information***, not **generating** it. It must have been assumed that knowledge generated in advanced agricultures could be transferred to less productive regions. In fact the dominant focus of agricultural development in the 1950's and 1960's was on extension, technology transfer and physical infrastructure. While there were a few agencies such as IICA (Inter-American Institute for Cooperation on Agriculture) and the Rockefeller Foundation pressing for agricultural research focused on food crops in tropical agriculture, most attention was focused teaching backward farmers to use technology developed in rich countries (Antholt). The accumulation over

time of a series of less than successful attempts at technology transfer (the most notorious one being groundnuts in East Africa) plus the powerful case made by Professor T. W. Schultz in *Transforming Traditional Agriculture* that farmers are efficient in using available relevant technology, shifted the focus to applied research which generates technology relevant to small farmers in the tropics and sub tropics.

Given that FAO was not organized as a research entity, the international community invented one. It came to be known as the Consultative Group on International Agricultural Research (CGIAR). This chapter chronicles the development of the CGIAR and its evolution over time and then reviews how FAO has interacted with the CGIAR. The story is complex as it involves others in the UN family seemingly encroaching on FAO's mandate to create a competitive fund seeker focused on agricultural development.

2. The CGIAR – Origins, Evolution and Changing FAO Interface

Before WW II, most research related to agriculture in the tropics and sub-tropics was focused on export crops. Well-established research institutes dealing with such export crops as rubber, coffee, oil palm, cocoa, cotton and tea were supported by one or more of the pre-War colonial powers like the United Kingdom, France, the Netherlands, Belgium, Spain and Portugal. Possible exceptions were the Imperial Agricultural Research Institute at Pusa, Bihar, India, founded in 1905 which focused on cereals (though probably for export also) and the West Indies Agricultural College founded in 1921 and renamed the Imperial College of Tropical Agriculture (ICTA) in1924. Pusa became the Indian Agricultural Research Institute (IARI) with independence in 1947 and began to focus on a wide range of commercial and food crops. ICTA established regional research programs in 1946/47 focused on Soils, Bananas and Cocoa. These became a Regional Research Center in 1955 and broadened their focus to include food crops. The program was eventually merged into the University of the West Indies in 1962.

A. Early Origins-Henry Wallace, IICA and the Rockefeller Mexico Program

The precursors of the CGIAR were non-colonial ventures which started in Latin America. International agricultural research focused primarily on tropical food crops appears to have its origin with visits by Henry A. Wallace, U.S. Vice President, and former Secretary of Agriculture (part of the legendary "Wallaces of Iowa"), to Central America and South America in the early 1940's. Wallace was a third generation Iowa farmer/scientist whose father had been Secretary of Agriculture in the 1920's. Henry A. was, among other things, a pioneer breeder of hybrid corn and the founder of Pioneer Hi-Brid, a very successful seed company which was acquired by Dupont in the 1990's. Wallace was convinced that there was need for applied agricultural research focused on food crops important to the poor in the tropics.

The results of this interest were contributions to the establishment of two important international research institutions that continue until this day- IICA/CATIE and the CGIAR. Working with Ernesto Molestina, Director General of Agriculture of Ecuador, Wallace helped establish the Inter-American Institute of Agricultural Sciences (IICA) in 1942, headquartered in Turialba, Costa Rica. In 1973 the research component of IICA formed the core of a new research organization CATIE (Tropical Agricultural Research and Higher Education Center). IICA continues to be an important agricultural and rural development policy and technical assistance organization in Latin America and is sometimes seen as a competitor with FAO – more on this later.

When Wallace came back after attending the inauguration of the Mexican President in 1940, he tried to persuade the US Government to support an agricultural research program in Mexico. He did not make much headway in Washington, even with the support of Joseph Daniels, the US Ambassador to Mexico. Later Daniels arranged a meeting for Wallace with John Ferrell, Rockefeller Foundation representative for North America and Raymond Fosdick, Foundation President so Wallace could press the Foundation to support the program. Fosdick in turn appointed a committee of Richard Bradfield, Paul Mangelsdorf and Elvin Stakman to go to Mexico to explore the needs. They recommended action (Stakman, Bradfield and Mangelsdorf) and the Rockefeller Mexican Program began in 1943 and the rest, as they say, is history because from the Mexico program came semi-dwarf wheat, and CIMMYT, one of the founding centers of the CGIAR.

This history is well recorded in Warren Baum's book *Partners against Hunger,* so there is no need to dwell in detail on it here. Suffice it to say here that the Rockefeller Foundation later supported other programs in Colombia and Chile in beans, maize, potatoes and forage crops. In the 1950's the Rockefeller Foundation also began to explore how it could help in meeting what was seen as a potential growing food crisis in Asia. Ideas about a concentrated research effort on rice were discussed but were deemed beyond the financial resources of the Foundation. Enter the Ford Foundation with an offer to support collaboration. Two officers of the Ford and Rockefeller Foundations - Frosty Hill and George Harrar - often rode the same train to work in New York and discussed the need for more concentrated research efforts. At a joint meeting of the Foundations in 1958, Hill reportedly offered Ford's more ample monetary support to add to Rockefeller's technical capacity to create a Rice Research Institute. Hill's comment was that "'this seemed like a good idea to both of us'" (Baum p.14). *"**From this casual conversation was forged a remarkable partnership between the two foundations that over the next decade laid the basis for the international agricultural research system that is now in place.**"(Baum, p. 15)*

Over the decade of the 1960's Ford and Rockefeller created four International Agricultural Research Institutes (IARC's) :- the International Rice Research Institute (IRRI) in 1960 headquartered in the Philippines; Centro Internacional de Mejoramiento de Maiz y Trigo (CIMMYT) in 1966 headquartered in Mexico; International Institute of Tropical Agriculture (IITA) in 1967 headquarters in Nigeria; and Centro Internacional de Agricultura Tropical (CIAT) in 1967 headquarters in Colombia. The early successes of

IRRI and CIMMYT with semi-dwarf rice and wheat, and felt needs to expand research efforts both in existing centers, and in additional ones being proposed, exceeded the Foundations capacity to finance them. This led the Foundations to seek external support for the four centers first from the US, and then Canada, the Kellogg Foundation and the United Nations Development Program (UNDP) but progress was spotty and slow. It seemed a concerted international effort would be needed to finance the rapidly growing research enterprise.

B. 1968-1971: Creation of CGIAR and What Role for FAO?

In 1969, the Director General of FAO, Addeke Boerma, proposed a major conference to help international agencies coordinate their views on rural development. The Ford and Rockefeller Foundations, upon learning of the meeting, saw an opportunity to promote support for international agricultural research so they essentially hijacked the idea and proposed instead a small, informal meeting of agency heads at the Rockefeller Foundation's Villa Bellagio in Italy. The meeting was held April 23-25, 1969 and succeeded in getting around the same table the heads of three UN Agencies – the World Bank(WB), UNDP, and FAO, the heads of the U.S., Canadian, Swedish and British Aid Agencies plus senior leadership from the two Foundations, the Asian Development Bank (ABD), the Inter-American Development Bank (IDB) and the Japanese Aid Agency. What started out to be a wide ranging discussion of agricultural development issues was by the end of third day highly focused on the need for support for international agricultural research. This research would develop crucial new technologies which would help in meeting what was seen as an imminent food crisis and would help as well to stimulate agricultural development. In particular there was support for developing sustained financing for the four existing centers plus possibly five or six more that were either at the gates available for admission or whose development was seen as necessary. One of the people who became increasingly enthusiastic about the venture was Robert McNamara, President of the World Bank, and towards the end of the Conference he proposed something like a World Bank Consultative Group to organize support. Figuring out how to structure and fund the enterprise was left for subsequent meetings.

FAO, according to Baum, was an early supporter of the idea of focusing on high yielding varieties. They were already engaged in " *a number of small, scattered projects in such areas as field testing new varieties, development of new seeds, and training of research personnel."* (Baum, p. 34) This included support to CATIE and carrying an initiative to create a West Africa Rice Institute (which later joined the CGIAR as the West Africa Rice Development Association (WARDA)). In fact the FAO Conference of 1969 *"...confirmed the organization's interest and active role in the field of agricultural research."* (Baum, p.35).

At two additional meetings, Bellagio II (Feb 3-6, 1970) and Bellagio III (April 8-9, 1970), the idea of a consultative group was firming up. The World Bank was encouraged to take the leadership, with its co-partners UNDP and FAO, to finalize the structure and to seek funding pledges. At a follow up meeting at UNDP in May 1970

representatives of the intended co-sponsors (UNDP, WB and FAO) met privately to discuss structure and organization. FAO proposed that the representatives of the three cosponsors be an Executive Committee. UNDP supported the idea but the Bank was skeptical about leaving most donors in a secondary position. Later at the same meeting when representatives of the Foundations, IDB and the new Canadian aid entity The International Development Research Centre (IDRC) joined the meeting, it was felt that other donors would be unwilling relinquish to the cosponsors the degree of control implicit in an Executive Committee. Thus the Executive Committee was short-lived. The meeting discussed many other issues including membership, how the group would function and the need for technical advice on research priorities. It was concluded that rather than relying solely on FAO for technical advice, there should be an independent Technical Advisory Committee (TAC) to advise independent donors on priorities for research in the Centers. It was also agreed there would need to be secretariat support, technical support from FAO, and management support from the Bank.

Despite Mr. McNamara's commitment to the idea of an international consortium, convincing the World Bank's Executive Directors (EDs) and staff was a hard sell and took several meetings. Opinion was already divided as to whether the Bank should expand its agricultural lending portfolio to include agricultural research. So proposing that the Bank take a leadership role, and possibly provide financing, for international agricultural research efforts intensified the debate. Several Directors held the view that if an international effort was to be set up, it should be FAO, not the Bank that should be in the lead. The discussions between the Bank and FAO went on over the spring and summer of 1970 and led to further clarity of FAO's role. It was to take the lead on technical matters including recommendations on TAC and in providing the TAC Secretariat. "*The fact that Boerma and McNamara saw eye-to-eye on the respective roles of their two institutions proved to be a critical element in eventually gaining acceptance for the proposal of a consultative group."* (Baum, p. 47).

By the end of October McNamara finally had approval from his EDs. He convened a preliminary meeting in Washington, D.C., January 14-15, 1971, to discuss a paper prepared by the Bank on "Possible Objectives, Composition, and Organizational Structure of an International Agricultural Research Consultative Group." A total of 28 delegations came. All but two delegations agreed to move forward with a first formal meeting and many, despite it not being a pledging session, made financial commitments - including USAID for 25% of the costs. The Bank also confirmed that it would be a contributor. Much attention was given to the proposed Technical Advisory Committee which was being advanced by the two Foundations, and was of concern to FAO given its UN mandate in agriculture. In the end objections to creating yet another international organization were overcome when the Chair of the meeting "…***responded with the observation that what was proposed was not an organization at all, but an arrangement for consultation."*** (Baum, p.5). The meeting ended with an agreement to proceed and the first meeting of what was to become a unique international entity - The Consultative Group on International Agricultural Research (CGIAR) - was held in Washington, D.C. May 19, 1971.

The first meeting firmed-up the basic structure of the CGIAR. The Centers were to be independent with their own Boards of Trustees, there was to be an Independent TAC and donors were free to support directly the center(s) of their choice as long as the Centers program was within TAC priorities. The CGIAR would not be constituted as a legal entity, but would rather be an informal forum for consultation. The World Bank would provide the Chairman, and in the end, the only authority given the Co-Sponsors was that of recommending who should be the Chair and the members of TAC.

FAO was a co-sponsor and was given donor status even though their only contribution would be partial support of the TAC Secretariat. They were to house the TAC Secretariat and to "take the lead" on technical matters. But it was unclear what the latter meant, as a group of recognized international scientists were appointed to TAC under the Chairmanship of Sir John Crawford of Australia. Crawford was a distinguished development economist who, despite his modest stature, was a powerful intellectual force who would take his mandate to chair an "independent committee" seriously. It would seem logical that FAO would have interfaces with the CGIAR and its four founding centers on at least **three levels**: - at the **corporate** level - FAO/CGIAR; **unit** level - Center/FAO agricultural divisions; and **individual** - scientist to scientist. The CGIAR was highly focused in IRRI and CIMMYT on breeding rice, wheat, and maize, and on tropical farming systems in the humid tropics of West Africa and Latin America in IITA and CIAT. The overlap was limited and the synergies promising. But at the global level a new international agricultural organization had been formed and the World Bank, not FAO, was in the lead. Over the coming years the relationship between FAO and the CGIAR, particularly at the corporate level, would periodically be buffeted by serious disagreements.

C. 1971-1979: Rapid Growth and Expanded Scope of the CGIAR

In its first five years the CGIAR grew rapidly. Between 1971 and 1976 donors increased from 11 to 26, contributions increased from 15 to 63 Million $US and 7 new research enterprises were added:- ICRISAT- 1972; CIP-1972; ILRAD-1973; IBPGR-1974; WARDA- 1974; ILCA- 1975; and ICARDA-1976. Concerned about budgetary costs rising at over 30% per year, the donors commissioned the first review of the System in 1975. That review recommended a "period of consolidation" - i.e., stop adding centers so fast. Despite this admonition the Group added two more Centers, ISNAR in 1979 and IFPRI in 1980, so at the end of the first decade the CGIAR was 13 Institutes and a 100+ million dollar enterprise.

Over this period FAO's Corporate relationship with the CGIAR was strained several times. In 1971 TAC asked FAO to prepare a proposal for how the CGIAR could support a global mechanism "…to encourage, coordinate and support action to conserve genetic resources…" (Baum, p. 79) The proposal was to create an International Board for Plant Genetic Resources which would advise FAO on priorities for expanded collection and conservation efforts. The FAO proposal was for the collection to be done through existing centers and would be funded by an expansion of FAO's internal budget. Some members of TAC wanted a much more ambitious program outside of FAO and for two

years the debate went on. In the end the compromise proposed was an independent board of experts to design and direct the program with technical support provided by FAO. At International Centers Week - 1972 (ICW-72) a number of donors continued to push for it to be a purely FAO operation but by 1973 the FAO Director General agreed to the compromise mechanism and the International Board for Plant Genetic Resources (IBPGR) was created in 1974. However, issues relating to Genetic Resources remained problematic and would eventually lead to IBPGR being separated from FAO and constituted as a regular CGIAR Center, the International Plant Genetic Resources Institute (IPGRI) circa 1990. The paper returns to this issue in a later section.

TAC's, and later the Science Council's (SC) (TAC's successor) relationship with FAO Headquarters, has periodically caused friction. In early 1976 the new Director-General of FAO summarily fired the Executive Secretary of TAC without consulting with even his Co-Sponsor colleagues. Later that year when Sir John Crawford retired as Chair of TAC the co-sponsors were unable to agree on a successor. UNDP and the WB wanted it to be David Hopper, then President of IDRC, but the D-G of FAO refused, pushing in principle for a developing country person. The fact that the FAO D-G, Mr. Saouma, had just won his post in a bruising battle with the same Mr. Hopper probably also played a part. After a three month stand-off, a compromise candidate was proposed by a special committee chaired by the Chair of the CGIAR. It was Ralph Cummings, a long employee of the Rockefeller Foundation in India and a highly respected agricultural scientist. Eventually Saouma agreed even though Cummings was a U.S. national, not a developing country person.

The next major confrontation was over the creation of a CGIAR mechanism to help strengthen national agricultural research and extension organizations. This was seen by FAO as a frontal attack on their turf and they fought it. The issue was complicated by the fact that the Rockefeller Foundation had recently created an agency called the International Agriculture Development Service (IADS) to provide advice to developing countries on how to strengthen national programs. It was staffed by many experienced former Rockefeller Foundation agricultural staff. The proposal was for the CGIAR to take up support of IADS. But by this time many donors were tired of taking on support for agencies previously organized by the Foundations and proposed to create their own new organization named the International Service for National Agricultural Research (ISNAR). FAO objected that ISNAR was not needed as the task was clearly theirs. In the end the CGIAR went ahead and created ISNAR in 1979, attempting to mollify FAO by giving it a statutory seat on ISNAR's Board.

It is also interesting that in the early discussions of creating a policy research institute which ultimately became IFPRI, FAO proposed an internal or affiliated institution to be located in FAO. However donors did not rally around an FAO dominated enterprise. IFPRI was first created by a consortium of donors –IDRC, Rockefeller Foundation and Ford Foundation – in 1975 and provisionally admitted to the CGIAR in 1979 and finally confirmed in 1984. (See Farrar, 2000 for the IFPRI story in more detail.)

At the Center-Department and scientist to scientist level, the expansion of the CGIAR greatly expanded the potential interfaces between FAO and the CGIAR. These new interfaces included: livestock, both disease and production issues; genetic resources (a program embedded in FAO); roots and tubers; arid zone cereals -millet and sorghum; pulses; support to national programs; and policy. These new interfaces offered both possibilities for collaboration and synergies but also for competition for turf and, more importantly, funds. Over time both possibilities became reality but in different ways in different subject matter areas. In the next section the current state of interaction in many of these areas is reviewed.

D. The 1980's: Budget Constraints and Growth Stops

In 1981 initial Center budgets totaled US$156 million and it was clear that less than $138 million was likely to be pledged. The era of basically unrestrained budgets was over. TAC was pressed into being the budget committee when donors could not agree on even a temporary Finance Committee to make allocations. No new centers were added and the 1980's passed with modest real growth in funding, but the Centers still felt constrained.

Nevertheless new activities were regularly proposed by TAC or particular donors. After the period of consolidation was over in 1979, a new Vegetable Center was proposed and rejected. The United States proposed the CGIAR adopt its International Fertilizer Development Center (IFDC) which suffered a similar fate on the grounds that the CGIAR should not support single factor of production centers. This was also the grounds for not accepting The International Center for Insect Physiology and Ecology (ICIPE)which was proposed in the early 1980's. A proposal to create a center focused on the management of water for irrigation also suffered rejection but for different reasons. *"Considering the high priority everyone accorded to research on management of irrigation water, there could be no stronger commentary on the stringency of the financing problems facing the CGIAR, and on the conservative attitude of donors in response to them, than the Group's decision to put aside this initiative."*(Baum, p. 163)

Interest in plant genetic resources heightened in the early 1980's as their conservation became a higher priority. At the same time it was recognized that most of these resources were in developing countries and these poorer countries were less able to manage and pay for reliable and useful collections. FAO became the center of debate with the passage by the FAO Council in 1983 of two resolutions, one about an "International Undertaking on Plant Genetic Resources," and a second requesting the establishment of a "Commission on Plant Genetic Resources". These two endeavors sought to institutionalize, through FAO, a master system of collections of genetic resources and their management. This raised concerns about the CGIAR initiative IBPGR which was funded by the CGIAR but housed and managed in FAO. The relationship became increasingly strained and some donors, supported by a TAC subcommittee, favored separation from FAO. In 1985 the CGIAR Chair appointed a committee to further review the issue and it concluded it could not agree completely with TAC. It "…displayed its own caution in walking through the minefield of relations with FAO…"

by recommending yet further discussions with the FAO D-G. This wrangling went on for several years and eventually IBPGR became an independent entity, physically separated from FAO but still in Rome. The process leading to the separation is fully discussed in Baum (pps.167 – 172) and is an instructive analysis of the growing complexity of FAO/CGIAR relations. This was probably the low point in CGIAR/FAO relations on plant genetic resources. Later in this chapter the current state of affairs is reviewed.

E. Late 80's, Early 90's: A Renewed Search for New Money by Expanding the Mandate

Over the period since 1979 a growing number of CG-like entities had been created outside of the CGIAR, usually by various subsets of CGIAR donors. Donor concerns were shifting from "expanding the pile of rice" to concerns about farmer's income and rural poverty, and environmental concerns about natural resource management in rural areas. In particular several large donors were expanding support for forestry, fisheries and related natural resource issues. A new Chair of the CGIAR took office in 1987 and at his first meeting (Berlin, May 1988) proposed that the CGIAR broaden its focus and take under its tent 10 additional international entities, many of which had some natural resource emphasis. The proposed additions included: 1. The International Center for Research in Agro-Forestry (ICRAF); 2. The International Union of Forestry Research Organizations -Special Program for Developing Countries (IUFRO-SPDC); 3. The International Board for Soils Research and Management (IBSRAM); 4. The International Center for Living Aquatic Resource Management (ICLARM) fisheries; 5. The International Trypano-Tolerance Center (ITC); 6. The International Network for Improving Banana and Plantain (INIBAP); 7. The International Fertilizer Development Center (IFDC); 8. The International Center for Insect Physiology and Ecology (ICIPE); 9. The International Irrigation Management Institute (IIMI); and 10. The Asian Fruit and Vegetable Research and Development Center (AVRDC). The last four had been previously rejected by the CGIAR. If all were accepted the CGIAR's mandate would be expanded into forestry, fisheries, soils, water management, insect ecology, and fertilizer as well as adding more commodities - vegetables, bananas, and plantains, and expanding efforts in animal disease control.

The proposal was greeted with surprise and some alarm but the main concern was that it by-passed the CGIAR's time honored deliberative process which involved a TAC review and then Group debate, one proposal at a time. Nevertheless there was considerable interest in the underlying proposition to radically expand the CGIAR's mandate as a means of attracting additional funds from outside traditional development support for agricultural and rural issues. The new TAC Chair proposed that TAC undertake a full review in two stages - the first stage to review the consistency of the subject matters represented by the Institutes with the CGIAR's priorities, and then a second stage which would review only the Institutes that fitted the CG's priorities to see if their programs were consistent with CGIAR approaches and that they were Institutes capable of delivering high quality international research. Clearly the implication of this analysis was that, if all were accepted, it would greatly expand the CGIAR's interface

with FAO, especially with forestry, fisheries and water, all areas where FAO was clearly the dominant international player. And as has been noted before, a greater interface expands opportunities for collaboration and cooperation **but** also for competition.

The CGIAR chair was impatient about waiting for TAC's analysis and pushed the Group, at its May 1989 meeting in Canberra, to agree in principle that the CGIAR would expand to include at least forestry. TAC completed an updated Priority Analysis by November 1989 and proceeded with the evaluation of the proposed additional Institutes. During the process, the expertise of FAO, as well as other international and national institutions, was used extensively in the analysis. In the end TAC recommended that subject matters of forestry, fisheries and water management were appropriate additions to CGIAR Priorities and that with appropriate adjustments in their programs, the following Centers should be admitted: ICRAF should expand its mandate to include forestry (and IUFRO-SPDC) and become an integrated forestry/ agro-forestry institute operating along the continuum of land use from native forests to monoculture agriculture; IIMI should be admitted with its focus primarily on improving the management of traditional irrigation systems; ICLARM should be admitted upon the condition that its research program be substantially strengthened; INIBAP should be admitted and merged into the banana breeding program at IITA; and that, if political issues could be overcome, AVRDC should be admitted. TAC continued to hold the view that single factor approaches to inputs into agricultural production were inappropriate for the CGIAR thereby leading to the rejection of IBSRAM, ICIPE, and IFDC. ITC was judged to be a practitioner's network, not a research entity.

After extensive debate, the CGIAR accepted TAC's recommendations regarding fisheries and irrigation system management so ICLARM and IIMI were provisionally admitted. The forestry recommendation was rejected and instead the Group decided to create a new forestry center which became know as the Center for International Forestry Research (CIFOR) headquartered in Bogor, Indonesia, and admit ICRAF as an agro-forestry center. The CGIAR, seeing INIBAP as primarily a network for facilitating germ plasm exchange, accepted it as an independent Center but with a 5 year sunset clause in order to test this mode of operation rather than merging it with IITA. Finally AVRDC's location continued to be an insurmountable barrier to CGIAR membership.

So by the end of 1991 the CGIAR had grown to 18 from 13 Centers and its mandate had been substantially expanded. Yet two concerns persisted: that funding was not increasing with the new additions as had been expected; and that the system had too many centers with many overlapping mandates, which was leading increasingly to inter-center competition and high governance costs. At ICW 1992, The Group asked that TAC, after having completed the expansion analysis, to carefully consider possible consolidation of centers and a restructuring of the CGIAR. TAC presented its long and medium term visions for the CGIAR and some proposed criteria for restructuring to International Centers Week 1993 and was asked to proceed on that basis and present a specific set of proposals for restructuring to the Mid-Term Meeting in 1994.

F. 1994-1998: Budget Crisis and "Renewal"

The TAC analysis was never published as a new Chair of the CGIAR did not want "his legs cut out from under him before his 'renewal' program could be put in place". He convened an *ad hoc* meeting of donors in February 1994 pleading for time to implement his plans for renewal of the CGIAR before publicly admitting that the System was too big and under funded. At the request of the *ad hoc* donors group, which represented the majority of CGIAR donors, TAC agreed to table the analysis, where it remains to this day. The plans for renewal called for reaching out to a broader set of stakeholders, including the private sector and the NGO community, convening a major pledging meeting in Lucerne in early 1995 and persuading the World Bank to put up an additional US $20,000,000 if donors would match it 2 for 1 with "new" core money.

The matching was eventually completed, in part by allowing centers/donors to convert "Special Project" funds to core funds. This fundamental change in financing meant that many projects which had been outside the Centers core program became core without TAC review or full knowledge of what was in the projects by other donors. In the same period the World Bank shifted part of its funds from its historical role as "donor of last resort" to "donor of first resort", arguing that in its "last resort role" it was spending its money on Centers others chose not to fully support and therefore was supporting "the dogs" of the system. But the impacts of these two actions fundamentally altered the nature of the CGIAR. TAC review of core programs (and keeping bilateral activities out of core by reviews of new Special Projects), and the Bank's selfless funding procedure, basically ensured that TAC priorities were implemented, giving a corporate CGIAR wide programmatic coherence to an otherwise highly decentralized organization (Kapur, Lewis and Webb, p. 400, ftn 43). But these changes, essentially taken unilaterally by the Bank, effectively severed any linkage between System/TAC priorities and fund allocation, meaning that, in fact, the Program of the CGIAR was the sum of decisions taken independently by 18 Centers. These events, plus a less than fully engaged TAC, and a CGIAR Chair who did not appreciate contrary advice, fundamentally and irreversibly changed the CGIAR. This view is affirmed by Uma Lele and her team in *The CGIAR at 31* published by the World Bank's OED Department in 2003.

Also in this period ILCA and ILRAD were integrated into the International Livestock Research Institute (ILRI) and INIBAP was integrated into IPGRI, which has recently been renamed Bioversity, reducing the number of centers to 16. However there was a growing number of System-wide and Eco-Regional Programs participated in by many sub-sets of centers.

The result was greatly increased competition by Centers for project funds because the higher their projected budget, the more World Bank funds they would get up front. This further accelerated the shift in funding from Unrestricted Core to project funding. In the 1970's more than 90% of CGIAR funding was core; by 1990 it had fallen to less than 65% core and by 2000 it was less than 50% - and for some centers less than 40%.

The implications of all of these changes in the nature and coherence of the CGIAR for relationships with FAO are many. First, the importance of TAC as an independent and influential source of guidance for the CGIAR was greatly reduced - setting priorities that have no impact on budgetary allocations is an empty exercise. Second, Centers increasingly became competitors for donor funds at precisely the same time that FAO was increasingly dependent on project and trust fund support (also called supplementary or extra-budgetary funding). Third, given that an increasing share of Center funds now came from donor bilateral and regional funds, as opposed to global funds, meant that Centers intensified their linkages directly with NARS (National Agricultural Research Systems) because it was now in their financial as well as programmatic interest to deal directly in technology transfer in direct competition with the historical role of FAO.

G. 1999-2006: Review and "Reform"

The Third System-wide Review (1998-1999) reaffirmed the overall relevance of the CGIAR but proposed significant changes in governance and management to move the CGIAR towards a more centralized, corporate structure. It was felt that the doubling of CGIAR membership and the growth in breadth and complexity of CGIAR programs, rendered annual decision making by "committee of the whole consensus" increasingly dysfunctional. While the Group resisted giving up its time honored general meetings, it did agree to a representative Executive Committee to "advise" the Annual General Meeting on issues coming before it. It accepted a re-naming of TAC as the Science Council but did nothing to restore the linkage between priority setting and resource allocation. And the Centers, sensing winds pushing them in the direction of greater interdependence, created an Alliance after their earlier attempt to create a Federation of Future Harvest Centers was derailed by preemptive action by yet another new Chair of the CGIAR.

Programmatically, the major innovation was the creation of Challenge Programs which were touted as a new mechanism to generate new money and to focus the CGIAR on cross-center global issues of emerging importance. Four so far have been created and no doubt have generated some new money but have also resulted in the diversion of existing funds (especially those of the World Bank) to Challenge programs.

All of these recent changes have not, however, fundamentally altered the basic set of interactions between the CGIAR and FAO. Also in this period, ISNAR disappeared under somewhat difficult circumstances. Thus, the CGIAR, as of the end of 2006, consists of 15 Centers, 4 Challenge Programs, 20 Inter-Center Initiatives and 6 Eco-regional Programs and an overall budget approaching $US 500 million.

H. Summary: The Changing CGIAR/FAO Interface

The creation of the CGIAR in 1971 was opposed by some because it appeared that this World Bank-led initiative would encroach on FAO's legitimate mandate. Others countered that FAO's mandate was to "collect, analyse, interpret and disseminate information relating to nutrition, food and agriculture," therefore an organization that creates information through research should be seen as a complement to FAO. At the outset the interface was limited both in terms of commodities - rice, wheat and maize and geography- low and mid-altitude tropical farming systems in West Africa and Latin America. But as the CGIAR greatly expanded its mandate over the first 35 years of its existence, the areas of interface multiplied – more commodities - including dry land cereals, roots and tubers, legumes, bananas and plantains - and livestock. New areas were added where FAO had a major presence - forestry, fisheries, water management, genetic resource conservation, policy and strengthening National Agricultural Research Systems (NARS). The CGIAR Centers, constantly being pressured to demonstrate that the products of their research were useable in farmer's fields, built direct research and technology transfer mechanisms for their commodities to National Programs that displaced, in many cases, FAO's efforts. As both agencies became less funded by core/regular budget funds to the institution, and more funded by project funding, they inevitably became, in some cases, fierce competitors for technology transfer activities and for funds.

The purpose of this extended and detailed history of the interface has been to document the complexity and the dynamism of the relationship over time. It should be clear that over this period there have developed a mosaic of interfaces which have continuously changed over time. Some are extensive and mutually productive, some have been problematic and some have dwindled to very low levels. There has been a steady stream of abrasions at the **corporate level** involving either the complexities of the TAC/SC Secretariat being an administrative unit in FAO or where the CGIAR seemed to be making a frontal attack on FAO turf - such as in genetic resource conservation (seen by FAO as part of its Global Normative public good role) or in direct technical assistance to NARS. There have been ebbs and flows of relations at the **unit level** where it seems, for example, that interfaces in the core food crop areas are considerably less than in areas like forestry, fisheries and policy. It has been impossible to document in any detail interfaces at the **individual scientist level,** though anecdotal evidence suggests there have been many productive partnerships. Thus, in the next section, the paper reviews a sampling of the current state of interfaces and makes some comments on possible future directions.

3. The Current State of CGIAR/FAO Interrelationships: A Sampling

This section is based on questionnaire responses and/or interviews with 14 of the 15 Director Generals of CGIAR Centers. Interviews were conducted with several FAO Division Directors, Service Chiefs and other senior FAO staff and with the Officers of the CGIAR - The Chair, CGIAR Director, Science Council Chair, and SC Executive Director, and Chair of the Alliance Board. In addition the author has some historical experience and perspectives on the FAO/CGIAR interface having directed the First Review of the CGIAR in 1976, served 11 years on TAC, 7 as Chair, served as cosponsor for two years and on the Alliance Board for five years. The linkages under review occur at, as noted, three levels - corporate, unit and individual levels, the first two are considered in turn but we have no specific details on the third level. Casual evidence suggests that they are apparently substantial in a number of areas..

A. Corporate Level Linkages: Current State

The FAO identifies the CGIAR as one of its most important partners. It is listed as the fifth most important partner behind the World Bank, UNDP, UNEP and WHO (FAO/PBEE, 2005). The first three are major suppliers of funds to FAO and the fourth, WHO, has a major joint program in CODEX. Thus it could be said the CGIAR is first among non-financial partners. Two CGIAR Centers are listed in the top 20 (CIFOR #10 and ILRI #17). According to the Partnership analysis, FAO's most important partnering group is Research Institutions (RI 31%), followed by UN System partners(UN 26%), Intergovernmental Organizations (IGO's 15%), International Financial Institutions (IFI's 9%), NGO/CSO (11%) and the Private Sector (PS 3%). Within the RI group the CGIAR is the most important by far. "*There are multiple linkages at the governance, strategic planning and programmatic levels, for information exchange and normative and technical activities."*

Yet there are complaints on both sides that there is no formal corporate strategy on either side for planning, implementing and evaluating these multiple interactions between FAO and the CGIAR. FAO's "formal" link is as a co-sponsor but that is accomplished by designating one Assistant Director-General (ADG) as the co-sponsor representative. Originally that was the ADG/Agriculture as the early interfaces were research programs focused on agricultural/food production. In the late 1980's a new ADG was created for Sustainable Development and the then-Executive Secretary of TAC was promoted to that position and the co-sponsorship went with him. People on both sides mark that as the beginning of a decline in information exchanges both ways. The co-sponsorship has remained with that ADG, a position which in recent years has experienced rapid turnover (4 ADG's in 1&1/2 years). As far as can be determined FAO has not developed an effective mechanism of sharing information about developments in the CGIAR with the whole FAO House. This is a complicated task as FAO is a complex and diverse organization, often being characterized as being a set of vertical silos called

Departments. The recent PBE Evaluation of Partnerships and Alliances has a similar conclusion and a recommendation addressing this issue.

On the other side there is not a specific mechanism for CGIAR Centers to learn of developments in FAO either. Some D-Gs visit relevant departments/divisions regularly, some periodically visit old friends and some seldom, if ever, visit. A few Centers have formal MOUs and/or regular joint planning sessions with FAO. It would seem plausible now that the CGIAR Centers are organized as an Alliance of CGIAR Centers, that some regular means should be sought. However, last year the D-G of FAO requested an opportunity to meet for a couple of days with all of the D-G's of the CGIAR Centers but this has been met with limited enthusiasm and has not yet occurred.(It is now tentatively scheduled for April 2007 with 10 of 15 DG's indicating willingness to attend.) The absence of some regular mechanism means that FAO and the CGIAR Centers tend to see each other more and more as competitors for resources rather than collaborative partners. This is unfortunate as the complementarities between information generators and information managers and disseminators ought to be obvious.

Over the years, as was noted in the history sections above, there have been a series of abrasions between FAO and the CGIAR at the corporate level. It is useful to note their current status.

a. TAC/SC Chair, Executive Director/Secretary and Secretariat staff and access to FAO technical expertise

The relationship between the senior administration of FAO and the TAC/SC Secretariat has had many challenges, basically over two issues - who would be the Executive Secretary and the nature and quality of staff hired into the Secretariat. This issue flared again with the appointment of a new TAC Chairman in 1988 and was a major issue with the first Chair of the newly constituted Science Council. On at least two occasions the person appointed Executive Secretary was someone other than the CGIAR's preferred candidate and on a third occasion only upon the threat of the TAC/SC Chair resignation did the recommended candidate finally get appointed.

The process for selection of the Executive Director is now codified in the CGIAR Charter (Annex to the Charter, pp16-17) but has yet to be fully tested as it again requires the FAO D-G to select from a list of "up to three people" proposed by a CGIAR selection committee. This still leaves the possibility that only one name is proposed and that name is unacceptable to the D-G, as has happened before. There is now a new Science Council chair and apparently the issue is currently not contentious.

Almost every TAC/SC chair has fought, not always successfully, for better quality staff and has asked for the inclusion of external recruitment in any search process. This process appears to have worked well in recent years for Professional staff. However, apparently issues still remain where FAO administrative rules regarding support staff travel and consultants are viewed as sometimes constraining.

Given that FAO is no longer a major donor to the Science Council Secretariat, the question of whether the Secretariat is best placed in FAO has again arisen. While not all TAC/SC Chairs have had similar approaches to utilizing FAO in-house expertise, there have been several occasions where sitting in FAO has offered distinct advantages. This has clearly been the case in almost all Priority-setting exercises, especially in the later 1980's and early 2000's. In addition, TAC used FAO in-house capacity extensively in the expansion analysis of 1989-1992. Further, FAO technical expertise has always been helpful in framing issues, identifying possible panelists and providing inputs into External Program and Management Reviews (EPMR's) of CGIAR Centers and Programs. So there are clearly benefits from access to FAO expertise which may help offset any remaining administrative abrasions.

Despite rumors to the contrary, the Science Council Secretariat in the most recent organogram published by FAO (Dec. 18, 2006) shows the Secretariat as an independent entity reporting directly to the ADG /NR (Natural Recourses Management and Environment Department). Thus, FAO has fulfilled its commitment to provide an independent, division level environment for the Secretariat.

This set of issues, despite past challenges, seems at this moment to be not as contentious as they have in the past.

b. Issues of Overlapping Mandates

i.) Genetic Resources

The history section identified two major areas of conflict – genetic resources and strengthening national programs (NARS). The evolution of FAO/CGIAR relations in genetic resources has been heavily influenced by international developments regarding intellectual property rights (IPRs). Early issues revolved around whether major efforts to preserve genetic resources, particularly land races and wild relatives as high yielding varieties came to dominate farmers' fields, was not a difference of priorities between FAO and the CGIAR but a fight over who would do it and who would get the budget. As noted in 1974, a CGIAR entity, housed in FAO, emerged as the International Board for Plant Genetic Resources (IBPGR) with FAO providing the Secretariat. Later, as FAO established a Commission on Plant Genetic Resources and pushed to organize an International Undertaking on Plant Genetic Resources, differences of views as to how the collections held by the CGIAR centers should be dealt with and whether IBPGR was functioning in the interest of the Centers or FAO management led to a deterioration of relations. This was further aggravated by concerns about the constraints on the Secretariat of being bound by FAO administrative procedures. These developments led ultimately in 1991 to IBPGR physically and administratively separating from FAO but remaining in Rome. Upon separation it renamed itself the International Plant Genetic Resources Institute (IPGRI).

But this was a period of rapid change in international conventions. The Commission on Biodiversity (CBD, 1992) recognized national sovereignty over genetic resources and raised questions about who owned CGIAR center collections. In parallel

trade-related aspects of intellectual property rights were being codified as TRIPS in the new World Trade Organization (WTO). To try to clarify where plant genetic resources fit, FAO pushed hard for an International Treaty on Plant Genetic Resources (ITPGR) which finally came into being in 2001. The treaty defined rules of access and benefit-sharing for 64 plant varieties, including most dealt with by the CGIAR.

By 1994 it was clear that developments in CBD and TRIPS raised concerns about the need to protect the large and important diversity in CGIAR collections. But the Centers were neither countries nor intergovernmental organizations. Here the invitation by FAO for the Centers to place their collections in trust for the world community under the intergovernmental authority of FAO was of mutual benefit. Also during the negotiations of the ITPGR, IPGRI provided valuable technical support to FAO and in the end there is chapter in the Treaty relating to the CGIAR. CGIAR Centers now have agreements with the governing body of ITPGR holding the collections in trust.

Thus, now a very positive and maturing relationship prevails between FAO and CG centers holding collections and a very special relationship exists with Bioversity International, the new name for IPGRI/INIBAP. We will have more to say about Bioversity/FAO relations in the next section on unit interactions. Suffice it here to say this once troublesome conflict seems to have been transformed into a very synergistic relationship.

ii) ISNAR

Another major turf battle occurred over direct technical and managerial support to strengthen national research and extension programs. The creation of ISNAR and its continued existence were troublesome to FAO despite it having a permanent seat on the ISNAR Board. But ISNAR never really developed a compelling research program and seemed, to many, to focus too much attention on consulting missions. Donors grew weary and eventually financial and governance issues led to a contentious dissolution of ISNAR in 2005. Some remnants of ISNAR program were merged with IFPRI and located in Addis Ababa. The whole saga of the demise of ISNAR brought little credit to the CGIAR but this abrasion at least formally disappeared. However, country reports for this evaluation suggest that on the ground, in at least one country, there still is little interaction between FAO Policy Assistance and IFPRI's efforts in support of national programs.

iii) Other Potential Conflicts that Did Not Happen

When the CGIAR expanded in 1991 many new overlaps between the CGIAR and FAO were created, yet there is no evidence that FAO actively opposed expansion into forestry, fisheries, and water management. In fact, FAO staff was substantially involved in the analyses that led to the expansion. Relations at the center levels between the FAO Forestry Department and CIFOR, and ICRAF to a lesser extent, are quite positive. Similarly in Fisheries the relationship is strengthening. Both these are discussed in more

detail in the next section. Information about the situation on water was not made available.

In summary it can be said that at the corporate level past negative abrasions have subsided and past conflicts appear to be in remission. However, agreeing upon a corporate strategy for positive synergistic interaction remains a major challenge for both parties.

B. Department/Division:IARC Interactions – A Mosaic

The current state of relations at the unit levels is a very mixed bag. Some relationships are strong, complementary and growing, some are active but sometimes competitive, some are intermittent and/or diminishing and some are limited where it is difficult to determine much action beyond Centers using FAO public goods – data and publications and running into each other at conferences. What follows is only a flavor of what was learned from the author's own interviews, the CGIAR- DG questionnaire, and gleanings from other interactions at the country or regional level. However the characterization of the relationships is the sole responsibility of the author.

The questions asked of Center Directors were straight forward: what is the nature of your interaction? How has it changed overtime? What is the value and quality of the interaction? Are there areas where you believe FAO should be active but are not? And what would be the most valuable role FAO could play in the future?

What is found is a complex set of relationships - some strong and growing, some limited and declining. The most puzzling thing is why has this pattern evolved? Why are relations in genetic resources, forestry, fisheries, livestock and policy positive and substantial and why are they not strong in traditional core areas of food crops, plant improvement, research and extension, plant protection and country policy assistance. One interviewee characterized the interfaces in the largest department, Agriculture, as "a few nodes of quality interactions in a sea of limited or no interactions". The apparent flavor of these interactions is presented below under two headings about the nature of the interaction: a. substantial formal interactions and b less formal, intermittent and partial interactions.

a. Substantial Formal Interactions

i. Genetic Resources

Bioversity International (formerly IPGRI) reports significant and expanding interfaces with FAO. This interaction involves first the role of the Center as the focal point for CGIAR Centers for inputs to FAO regarding the issues regarding the Commission on Genetic Resources for Food and Agriculture and the development and

implementation of the International Treaty for Plant Genetic Resources for Food and Agriculture(ITGRFA). A major focus is the administration of the collections of Plant Genetic Resources for Agriculture (PGRFA) held in trust by CGIAR Centers under the Treaty. **Bioversity**, in partnership with FAO, established the Global Crop Diversity Trust. Despite this obvious linkage with FAO only four other Centers explicitly mention the role of FAO in managing their genetic resources (**CIAT, IITA, IRRI** and **WARDA**)

While in the past **Bioversity's** major interaction was with AGP (Plant Production and Protection Division), it recently has expanded to work on forestry, animals, policy and social issues about the maintenance and use of diversity. It therefore interacts across most FAO Divisions. It has a joint project, along with **CIMMYT, CIAT** and **ICRISAT** on seed supply systems. All of this is contained in a revised MOU signed in 2004. There may be some overlaps and possible competition between FAO/AGA and **ILRI** on animal genetic resources regarding data bases and policy work.

Bioversity judges its interaction with FAO to be absolutely essential to accomplishing its objectives. However, the relationship would be stronger if FAO would take advantage of the greater operational flexibility of the center and would "…recognize more fully our particular capacity to deliver research out puts which they can mainstream". Finally as financial resources become more binding the Center would appreciate FAO becoming more involved in fundraising which would mutually benefit both organizations.

ii. Forestry

Strong interactions are reported in Forestry both in the responses from **CIFOR** and the **World Agro-Forestry Center (formerly ICRAF)**and in the technical evaluation of the Forestry Department. Both Centers participate under FAO's leadership in the Collaborative Partnership in Forestry (CPF). CIFOR contributes to regional forestry commissions which involve FAO and provides substantial inputs into publications like the State of Forests. Both Centers report joint work on selected projects, publications, workshops and training sessions. Both note that broadening the relationship further is constrained by reductions in FAO staff, particularly in the areas of research and extension. Both find FAO's convening power and access to policymakers valuable. However both feel FAO should recognize the complementarities of the Centers research role and FAO's information dissemination role - i.e., FAO could be more proactive in disseminating research results. World Agroforestry has made some attempts to build linkages beyond the Forestry Department regarding "trees outside of forest" and conservation agriculture.

Overall, there is substantial and sustained interaction in forestry, including joint projects, publications, workshops and training and working together in providing policy advice to governments. The major concern expressed was that FAO may be in danger of further eroding its cutting edge technical capacity as regular budget reductions have forced shifts to more project funding. Finally it should be noted that in forestry the World Bank has been a third corner in the international forestry partnership.

iii) Fisheries

WorldFish reports that limited interactions in the past are now being transformed into "*increasingly intimate research collaboration and strategic planning in the area of small scale fisheries and the economic analyses of fisheries*". There is a growing maturity in the quality of the dialogue regarding respective roles. Examples are in genetic resources and aquaculture development, particularly in Africa. What is required on both sides is a better understanding of institutional perspectives and a recognition that traditional views need to change.

iv) Livestock

In livestock there are annual meetings between the Division of Animal Health and Production and **ILRI.** There also exists a working MOU although it has not been formally signed off on by FAO. There is interaction in many projects, though ILRI perceives that it would be a stronger partnership if ILRI was recognized as a provider of evidence-based information to support FAO's efforts to shape policy at the national and regional level, instead of just another contracting party to do their tasks. This sometimes leads to the CGIAR center being seen as a competitor rather than a collaborator. This is a perception that arises in a number of other cases beyond **ILRI.**

The interaction has increased in the last four years but this has also highlighted some of the conflicts and differences of opinion. An example is cited in the case of Avian Flu where it is perceived that FAO "tried to ignore our expertise and inputs". However it should be noted that ILRI came to the Asian Flu effort quite late and had very limited capacity in epidemiology which was the main initial research need. FAO/AGA have some excellent people in epidemiology and socioeconomic assessment and remains a major player in the global Avian Flu efforts

We close this section by quoting a statement from ILRI regarding respective roles because it expresses in the specific case of livestock, a recurring generic theme in a number of Center responses. *"We believe that FAO's comparative advantage as an inter-governmental body is to influence, support and help shape national and regional livestock issues. We can provide them with science based evidence to help them shape their support to national governments."*

v.) Social and Economic Analysis and Policy Work

IFPRI and FAO have long standing interactions in both planning and operations. Usually there is a high level meeting once per year, the purpose of which is to avoid duplication. Despite these efforts many feel IFPRI and particularly the Agricultural and Development Economics Division (ESA) are in some senses mirror images of each other. Other elements of work in this area are clearly competitive as is, for example, the periodic long term projections of world agriculture done by both FAO and IFPRI. On the

other hand the global trade analysis done by IFPRI is seen as very complementary to the FAO efforts based in Geneva which are assisting developing countries steer their course in WTO. Most people give high praise to FAO flagship publications such as *The State of Food and Agriculture* and *The State of Food Insecurity in the World.* By their own preference, ESA see itself as the principle in-house provider of economic analysis whereas IFPRI tends to be more focused on high quality published material focused on country and global policy issues.

In the past IFPRI, The World Bank and FAO collaborated extensively on preparations for the World Food Summits (1996 & 2002). Currently IFPRI and FAO are working jointly on a major chapter in the World Bank's forthcoming *World Development Report* on Agriculture and Rural Development. Both have been involved in FIVIMS (Food Insecurity and Vulnerability Information Mapping Systems) though IFPRI is actively proposing an alternative measurement paradigm to the one used for many years by FAO.
IFPRI feels that FAO should take an active lead in measuring agricultural protection in developing countries as a counterpart for the analysis done by OECD for developed countries. Overall the interface is seen as positive and for the most part synergistic.

b. Less Formal, Intermittent and Partial Interactions

The remaining 8 centers are all focused on crops and ecologies of importance to food supplies for developing countries. Included are **CIAT, CIMMYT, CIP, ICARDA, ICRISAT, IITA, IRRI,** and **WARDA** and they map into the core traditional areas of FAO's mandate. Evidence from all sources suggests that the interactions with these centers is much more heterogeneous, ranging from a wide ranging, generally strategically complementary relationships with ICARDA and WARDA, to interactions with all on information and statistics (public good products), periodic interactions on conferences, workshops, Commissions, training, and special publications. An example was IRRI, WARDA and CIAT working on special programs such as the International Year of Rice in 2004. Scattered through the responses were comments such as:

-The relationship ebbs and flows, much of it based on personal interactions;
-The intensity fluctuates depending more on personal relationships than institutional planning;
-It is contracting and has been relatively minimal over recent years;
-Has changed from joint project involvement to periodically sharing experts for publications, conferences and networks. It covers a wide range of topics but is not deep;
-Mainly involves working on specific projects, is not a comprehensive partnership;
-Overall impression is that the linkages are not strong;
-Not happy with interaction, they fail to appreciate their lack of capacity on the ground;
-They only call on us when they are in trouble;
-We have many specific interactions but there is no effort to create a coherent partnership;

-FAO has very limited competence at the country level and that is where we do most of our interacting;

-Have been slow to keep up with the changing times- need to focus more on expanding their impact.

c. Concluding Observations

These comments coming from a cross section of the crop centers are not being made in a derogatory fashion; rather they are more laconic, lamenting about what could be but isn't. There is a strong feeling across all centers, especially these crop centers, that an effective positive partnership would be desirable with the Centers as producers of technology and science-based information and FAO as the intergovernmental body that uses this information in support of national and regional programs. Part of the reason this does not happen, in their view, is that FAO's attitude is one of having to dominate the relationship. The CGIAR is seen either as a contractor to be hired or as a competitor for the job or the funds. What the Centers claim they really want is to be treated as competent partners who bring to the partnership added value. Another current concern is that FAO in the core areas of plant science, ecology, molecular biology and biological systems has lost, or is in danger of losing, its cutting edge in science and therefore its historic role as the global leader in technical excellence in agricultural science.

4. FAO and the CGIAR: An Assessment and Future Prospects

Overall the relationship of FAO to the CGIAR is substantial but never static. At the corporate level relations are probably more stable now than they were in earlier years. The ISNAR abrasion is gone, collaboration in genetic resources now seems very constructive and there are apparently no big issues at the moment regarding the Science Council Secretariat.

At the Center/unit level it is likely that the reasons presented above begin to explain why the interactions between FAO and the Alliance of CGIAR Centers are highly variable and probably not as synergistic and collaborative as they could be. This is not because of any grand failure on either side. It is more likely the result of the two organizations differing paths of development, one growing and expanding its mandates and resources (CGIAR) and **one (FAO) facing growing challenges with constrained, or even declining resources, and seemingly unable to make hard priority choices as to what areas of expertise to sustain. This, in the views of many, has led to a steady and serious erosion of FAO's intellectual capital.** Further, the role of agriculture and rural development in poverty reduction, economic growth, environmental management and preservation of diversity has changed radically so that Ministries of Agriculture are less and less central to the subject matter. This leaves FAO, as a specialized UN agency linked to Ministries of Agriculture, no longer center stage.

Finally it should be noted that in many interviews and questionnaire responses it is noted that there are substantial interactions constantly going on between FAO and

CGIAR scientists and mangers at the individual level. However it is impossible to document these in any detail.

But the future is not hopeless. There is an obvious complementary relationship possible. In this day of partnerships and collaboration, the challenge for FAO (and the CGIAR) is to shed old habits and join in a constructive partnership with the most successful international producer of applied agricultural technology in history. Every one agrees that FAO, as a global intergovernmental organization, can both produce valuable international public goods and use its convening power to frame national, regional, and global issues. It should, therefore, have the capacity to provide coherent knowledge to influence policies, but to do so it needs to partner with, among others, generators of knowledge (CGIAR and increasingly the private sector) and providers of capital (IFI's). Clearly among the CGIAR Centers there is a strong urge to form stronger partnerships with a revitalized FAO.

References

Antholt, Charles H., 1998. "Agricultural Extension in the Twenty-first Century." In *International Agricultural Development, Third Edition,* edited by Carl; K. Eicher and John M. Staatz. Baltimore, MD: The Johns Hopkins University Press. Pp. 354-369.

Baum, Warren C., 1986. *Partners Against Hunger.* Washington, DC: The World Bank.

Consultative Group on International Agricultural Research (CGIAR), 2004. *Charter of the CGIAR System* and *Annex to the Charter. November 8, 2004.* Washington D.C.; The World Bank.

Evans, L. T., 1998. *Feeding the Ten Billion: Plants and Population Growth.* Cambridge: Cambridge University Press.

FAO/PBEE, July 2005. *Evaluation of FAO's Cross-Organizational Strategy for Broadening Partnerships and Alliances.* Rome: FAO

Farrar, Curtis, 2000. ***IFPRI's*** *first 10 years.* Washington, D.C. :International Food Policy Research Institute.

Kapur, Devesh, John P. Lewis and Richard Webb, 1997. *The World Bank: Its First Half Century- Volume One: History.* Washington, D.C.: Brookings Institution Press.

Lord, Russell, 1947. *The Wallaces of Iowa.* Boston, MA: Houghton Mifflin Company.

Muirhead, Bruce, 1999. *Against the Times: The Public Life and Times of Louis Rasminsky.* Toronto, ONT: University of Toronto Press.

Schultz, T. W., 1964. *Transforming Traditional Agriculture.* New Haven: Yale University Press.

Stakman, Elvin C., Richard Bradfield and Paul C. Mangelsdorf, 1967. *Campaign Against Hunger.* Cambridge, MA: Harvard University Press.

World Bank Operations Evaluation Department, 2004. *The CGIAR at 31: An Independent Meta-Evaluation of the Consultative Group on International Agricultural Research.* Washington, D.C: The World Bank.

03/02/07