

Crop Research Network Makes Some Changes

International agricultural research system adopts measures to improve its performance in Africa

THE international agricultural research centers that fomented the Green Revolution have experienced unaccustomed frustrations and failures in their efforts to improve the yield of food crops in sub-Saharan Africa. At their recent meeting in Washington, which was closed to the press, the centers took an unusually direct line in dealing with the difficulties.

According to several participants in the meeting, one African center was given an ultimatum to change its governance; another was criticized with uncommon sharpness for shortcomings in strategic planning. The centers as a group also faced up to a lack of coordination in their African activities, which has been viewed as a main obstacle to their effectiveness.

The 13 centers operate under the banner of the Consultative Group on International Agricultural Research (CGIAR). Traditionally the CG system, as it is familiarly known, conducts its affairs by consensus, so the way colleagues were called to account marked a rare departure from custom.

The CG system is an outgrowth of the agricultural research centers sponsored by

the Rockefeller and Ford foundations in the 1940's and 1950's that developed the high-yielding varieties of wheat and rice that fueled the Green Revolution. With the World Bank taking the lead and becoming a major donor, the CG was set up in 1971 and new centers specializing in other food crops were established. Sponsors of the CG in addition to the bank are the United Nations Development Program and its Food and Agriculture Organization, but the major share of funding has come from industrialized countries, with the United States as the largest contributor.

On the griddle at the Washington meeting were the International Livestock Center for Africa (ILCA) and the West African Rice Development Association (WARDA), two of four CG centers headquartered in Africa. In both cases, the censorious treatment was a product of the laborious review process that all the centers undergo. The action against WARDA was considerably more serious and reflected long-standing dissatisfaction with WARDA's performance.

A major problem for WARDA was that

the original scientific strategy adopted by the center was seriously flawed. An assumption that high-yielding varieties of rice developed in Asia would increase yields in Africa proved erroneous. Insects, plant diseases, and differing soil and climate conditions in Africa proved their undoing. Other CG centers operating in Africa made the same miscalculation, but were quicker to alter course. In addition to being criticized for a loss of direction, WARDA was taken to task for its management and personnel practices. The center has also been troubled by a divisive rivalry between francophone and anglophone staff members.

Then there is the matter of WARDA politics. With headquarters in Monrovia, Liberia, WARDA is unique among CG centers in being an intergovernmental organization established by a group of West African countries and governed by a council consisting of the ministers of agriculture from the member countries. The other CG centers operate with considerable independence under boards of trustees representative of the international agricultural research community. The CGIAR's Technical Advisory Committee influences the scientific program and exercises quality control.

WARDA was founded at a time when its member countries appeared to have the resources to sustain regional activities such as WARDA. Drought and the decline in world prices for West African exports devastated the economies of the WARDA countries and undermined financial support for the center.

One option being considered was the creation of a separate organization to conduct rice research now performed by WARDA and by another CG center, the International Institute for Tropical Agriculture (IITA), that focuses on crops in the humid tropics. Arguments for the preservation of WARDA put forward by WARDA member governments, however, apparently prevailed. A compromise approved at the recent CG meeting would place control over WARDA's scientific program with a board insulated from the council of ministers. In addition, WARDA would be required to strengthen its research capacities and carry out a number of management and organizational changes to bring it more into line with other CG centers.

The reorganization has been accepted in principle by the council, but there are doubts among donors and CG observers that political interference in the program will be banished. The donors have made clear that future support for WARDA will depend on the carrying out of the reforms.

The criticism of ILCA reflected much more mixed feelings. ILCA's mission is to



Increasing yields in areas such as this traditional rice-growing region of Casamance in Senegal is the objective of agricultural research in Africa.

World Bank

promote livestock production in Africa. It was established in 1974 in Addis Ababa explicitly to complement the work of another CG center, the International Laboratory for Research on Animal Diseases (ILRAD). Because it was recognized that livestock raising in Africa has a complex relationship to culture and ecology, ILCA was the first center with a specific mandate to emphasize farming systems research, which has a strong social science component.

ILCA's difficulty from the start has been seen as a failure to formulate a satisfactory general strategy. In part this is attributed to the breadth of its mission. It is responsible for all types of livestock in the many ecological zones of Africa. ILCA has been faulted for paying less attention to research than to attempting to solve specific local problems. And in the 1970's it got poor marks for administration. But the main complaint was that ILCA attempted too ambitious a program for the limited resources available.

Under its director general for the last 5 years, New Zealander Peter J. Brumby, ILCA is credited with correcting many of the management failings that it was blamed for. But there were persistent reports that the director and board were at odds. And recent reviews found that ILCA still lacked a satisfactory strategy. It was this shortcoming for which the ILCA board in particular was raked over the coals. Now ILCA has a new director general and new marching orders from the CG.

To deal with the larger issues of CG operations in Africa, the CG has had a task force appointed by its Technical Advisory Committee and a committee of center directors working in tandem. A major issue has been that of coordination among CG centers operating in sub-Saharan Africa. In West Africa, for example, WARDA, IITA, and the International Rice Research Institute, all pursue interests in rice development. Conflict is most serious when two or more CG centers ask a national research organization of one of the countries in the region to cooperate on their projects. These national organizations are underfinanced and overcommitted and have difficulty in meeting the demands of one collaborator, let alone several.

One proposed remedy was the creation of a new agency to coordinate CG operations in Africa. But the recommendation was resisted by the center directors who fear that such an agency would abridge center autonomy that is viewed as a major strength of the CG system. This view was expressed forthrightly at the meeting by Brumby as chairman of the committee of directors generals this year. "While none of your directors are foolish enough to claim perfection in these

collaborative efforts, I believe this collaboration is much more productive the way it is, with informality, goodwill, pragmatism, and enlightened self-interest being the driving forces, rather than attempts to impose coordination by outside bodies," Brumby said in a prepared statement.

The proposal for a coordinating mechanism was sidetracked at the meeting. As an alternative, the group decided that the centers operating in Africa should cooperate on several projects aimed at producing short-term results. These trial projects are to fea-

ture close consultation with national research organizations.

The CG centers earned deserved recognition for transforming agriculture in Asia and Latin America and are now making substantial advances in Africa, as with the recent development of maize varieties resistant to the destructive streak virus. But to achieve broad success in overcoming the formidable constraints on African agriculture they will have to do a better job of adapting both crops and the CG system to African conditions. ■ **JOHN WALSH**

Astronomer Fasts for Arms Control

A 56-year-old astrophysicist from New Mexico is currently starving himself to death in front of the White House to protest the Administration's nuclear arms policy. Charles Hyder, a former researcher for NASA's Goddard Space Flight Center in Albuquerque, began his fast on 23 September. He will not stop unless the government agrees to dismantle all nuclear warheads by 2000 and to cease supporting all violent military actions outside the United States.

A very large man, Hyder has lost about 100 pounds from a starting point of over 300, according to his friend James Evans, a former Army psychologist who is spelling him at his outpost in Lafayette Park. He is living on a gallon of water a day supplemented by sea salt to keep his electrolytes balanced.

Hyder, who has been an environmental and antinuclear power activist for the past 18 years, says he was fired by NASA and ousted from the University of New Mexico physics department in 1977 for his criticism of WIPP, the plan for disposal of nuclear waste in New Mexico. He rejoined NASA in 1980, but quit to devote himself full time to activism after the 1984 shelling of Beirut.

Hyder decided about a year ago that the best thing he could do to mobilize the public against the arms race would be to die for the cause. He gave away all his possessions and moved to Lafayette Park last Easter. He did a trial 33-day fast last summer. "I know that our system responds to dead bodies," he said at a small press conference in the park on 14 November, the day before the cross-country peace march arrived in Washington. "With a holocaust you can't fix it afterward so you have to offer up the bodies in advance."

Appearing calm and rational, and occasionally laughing, Hyder said he felt "serene and blissful knowing that I will be much



Charles Hyder: *Believes his death will trigger a "peoples' peace avalanche."*

more powerful in death than I have been in life." A thrice-divorced father of five, he says the response of family members ranges from "fantastic—go get 'em" to "you selfish son of a bitch."

Hyder's action is bringing mixed reactions from colleagues, according to George Field of the Harvard-Smithsonian Center for Astrophysics. More than 20 from the center as well as several physicists from Harvard and the Massachusetts Institute of Technology, including Nobel Laureate Sheldon Glashow, have signed a statement and held a 1-day fast on 14 November in his support.

Hyder estimates that he will die shortly after Christmas. "I know him too well to try to talk him out of it," says Evans. ■

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