WORLD HUNGER AND U. S. LAND GRANT UNIVERSITIES: CONSTRAINTS TO TECHNICAL ASSISTANCE IN INTERNATIONAL AGRICULTURE

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The 1974 World Food Conference in Rome was characterized more by rhetoric reflecting national vested interests than by constructive dialogue that might have led to effective policies and solutions to the world food problem. The conference did, however, focus international attention on the severity of the imbalanced supply and demand for food in the developing world. Conference delegates also generally agreed that while the developing world has potentials for increasing its food production, this would require substantial input of technical know-how, most of which would have to come from the developed world.

If we consider the past technical assistance programming of the United States as representative of the developed world--it is distressingly obvious that "more of the same" is not a proper response to the problems dramatized by the Rome Conference. Certainly the past twenty years of U. S. foreign assistance programs in agriculture have not noticeably alleviated the world food situation.

As an alternative for the future, we want to focus attention on better ways to share the fruits of what appears to be the world's most concentrated and best qualified source of agricultural know-how: the U. S. Land Grant University System. That the research and extension programs of these universities have been instrumental in creating the highly productive agriculture that characterizes the United States is well known among agricultural economists. It is equally clear that public investment

in these programs and their sine qua non human capital (agricultural scientists and technicians) has consistently generated high social returns. The crucial problem is how to quickly translate this expertise into an expansion of agricultural productivity in the developing countries.

Unfortunately, just transferring existing technologies is not a practicable solution. Enviornmental, agricultural, and cultural variables require on-the-spot interpretations and subsequent adaption of modern techniques by knowledgeable personnel. Both internal and external factors, however, currently preclude the Land Grant Universities from freely sharing their agricultural scientists and technicians with the countries that are in desperate need. On the internal side, there are inherent institutional constraints. Externally, technical assistance is managed as an integral part of U. S. foreign policy, which inevitably militates against realistic agricultural programming in the developing world. In this paper, we summarize the specific difficulties and propose ways to overcome them.

Our analysis is based mainly on extensive personal observations and experience, substantiated by conversations with other knowledgeable individuals in Land Grant Universities and foreign aid programs. In essense, we have chosen to try to activate the dialogue that is so urgently needed among administrators in Land Grant Universities, the U. S. Congress, USAID, the Foundations and involved professionals, rather than await the time-consuming accumulation of supportive data.

International Demand for Agricultural Scientists and Training

The domestic market for agricultural scientists remains relatively good, in contrast to current recessionary trends in the economy. In the international job market, the demand for agricultural scientists is surging upward, especially within the less-developed world.[1/] The full demand pressure has not yet been felt and can logically be expected to remain high until at least 1990.

This increased demand has two principal sources. First, increased prices of crude oil has resulted in a cadre of "new-rich" countries in the developing world including Iran, Nigeria, Libya, Egypt, Venezuela, and the Gulf Sheikdoms. The tremendous foreign exchange earnings of these countries, is being used to finance ambitious programs to modernize their economies. Most are giving particular attention to their agricultural sectors, at least partly because of internal pressure to distribute windfall gains among their relatively large and uniformly poor rural popultaions. Consequently, such nations have imported relatively large numbers of agricultural scientists to provide technical assistance. Concomitantly, they are sending thousands of their young college graduates and civil servants in agriculture abroad for advanced training. Despite these vigorous efforts, however, it will take most developing countries 10 to 15 years to assemble the necessary critical mass of agriculture scientists and to develop the complementary public services and institutions which can be effective in meeting their needs and objectives.

The second source of today's international demand for agricultural scientists is based on the world food crisis. In many of the "poor"

countries of the developing world, recent food shortages have caused a further deterioration in what was already a sub-standard diet for millions of people, while outright starvation has taken an appalling toll in several Asian and African countries. These ominous demonstrations of the sharp disparity between the agricultural production and importation capacities of some countries and their needs for food have prompted the developed world (especially the U. S.) to propose facilitating the access of these countries to technical agricultural assistance programs.[2/]

The response of U. S. Land Grant Universities to past, existing and foreseeable challenges has been less than enthusiastic. There have been few instances of significant reorganizations or other attempts to adapt the existing system to today's world. In fact, when viewed in relation to their total programs, most Land Grant Universities have been only marginally involved in providing technical assistance to agriculture in developing countries. Much of this lack of fervent dedication to an international sharing of expertise must be attributed to the system's internal institutional constraints.

Institutional Constraints

We perceive three principal and general constraints that militate against the Land Grant Universities satisfactorily meeting the demand among developing countries for technical assistance. These are: (1) the illegitimacy of technical assistance to international agriculture as a Land Grant University mission; (2) the inefficient internal organizations; and (3) the lack of incentives at administrative and staff

member levels to support and/or to accept technical assistance assignments in developing countries. These constraints are not mutually exclusive. In fact, their interdependency demands that they be treated as a set if they are to be corrected.

Even though some Land Grant Universities have been involved in tendering technical assistance to foreign countries for as long as twenty years, such activities have never been recognized as a legitimate university mission in the same sense as instruction, research, and extension. International programs have generally operated on an ad hoc basis, with domestic programs routinely given much higher priority. Several universities do have significant programs for technical assistance in international agriculture including: Cornell; Colorado State; Florida State; Kansas State; Michigan State; Minnesota; Mississippi State; Missouri; Nebraska; North Carolina State; Ohio State; Oregon State; Puerto Rico; Purdue; Texas A & M; Wisconsin and Utah State. But even these universities remain essentially provincial entities serving individual state needs. They all must regularly reaffirm (as they petition local legislators for support) dedication to their primary missions of instruction, research, and extension (service) that satisfy state needs. In fact, many universities within the Land Grant University System have a significant number of administrators (and confront state legislators) who are either covertly or overtly antagonistic to technical assistance activities, viewing them as aberrations that compete with the legitimate missions of the University. The extreme example may be the California system which discourages staff participation in long-term technical assistance assignments by often denying extended leaves from the campus.

The illegitimacy of technical assistance programs is manifest in the relative shortage of top quality staff members in teams sent abroad for long terms under university sponsorship. Universities typically staff their technical assistance teams by recruiting at least some personnel from outside their resident staff.[3/] Such personnel have only a limited commitment to the University and generally lack the training, research experience, and philosophical attitude toward scientific investigation and extension that typify highly competent scientists in the Land Grant System. The team members who do come from the university staff too often include individuals considered expendable, those who can never qualify for tenure, dissidents looking for a change, or the young and inexperienced who are intrigued by the economic rewards, even though some teams do include highly skilled scientists.

The existing administrative organization at most Land Grant Universities limits the effectiveness of technical assistance programs. The common practice now is to have the staff of an Office or Division of International Programs write the proposal for technical assistance services, recruit the staff, enter into contractual arrangements, and administer all aspects of the project. Only an irrationally altruistic Dean or Department Chairman would wholeheartedly support technical assistance programs that are designed for foreign consumption, controlled by a nonacademic office, and competing for his best resources when local programs are so much easier to administer and the pressures so much more immediate and politically demanding. The most that can be expected under this system is an "I'll do what I can" attitude and, in

too many instances, this leads to the recruiting system previously described.

The third principal constraint, the lack of incentive, is operative at the administrative level in both colleges and departments, and with individual staff members. In all instances, the disincentives derive mainly from the low priority given technical assistance programs within the universities and the concomitant failure of the system to guarantee to affected parties that their careers will not suffer from involvement in technical assistance programs.

Providing a qualified scientist to service a technical assistance assignment can leave a college and department without needed competence and ongoing domestic programs may be jeopardized. The release requires adjustments in departmental personnel assignments which are usually possible and can be funded with the money previously used to support the departed scientist, but which are nevertheless inconvenient. Ultimately, the department must find other sources of funding if the added staff member is to continue with the department, and this assurance is usually critical to his initial acceptance of the position. In essence, deans and department chairmen must be willing to hire staff on so-called "soft" funds with all the associated risks and uncertainities. A premature return of a staff member from foreign assignment because of health, early contract termination, or other reasons can present especially vexing difficulties. Universities have no contingency funds assignable to such exigencies. Their only possible response is to adjust current operating budgets, often at the expense of ongoing domestic programs.

The scientist intent on a successful university career, whether tenured or not, in most cases, views the offer of a foreign assignment as a drastic detour fraught with unknowns. It diverts him from his current research or academic program for an extended period and requires a readjustment upon his return. The problems are increased if his existing program is not maintained during his absence or is not to be reassigned to him upon his return. Also, university administrators who make salary decisions often consider the technical assistance work to be less "scientific" or less "sophisticated" than domestic research and, therefore, not as professionally creditable. Even ostensible economic gains may be significantly discounted when judged against the opportunity cost of leaving obvious professional growth opportunities and the problems of family readjustment.[4/] For staff without tenure or those facing imminent promotion decisions, technical assistance assignments are, at best, marginally appealing.

External Constraints

Three aspects of the current technical assistance program of the United States compound the adverse effects of the universities' internal constraints: (1) the system whereby the host-country contracts for technical assistance; (2) the political nature of existing technical assistance efforts; and (3) institutional constraints within the current operational system of USAID.

In some countries, host institutions (such as Ministries of Agriculture) are being required to contract directly for technical assistance services rather than have USAID contract such services as in the past.

The basic argument for the host-country contracting is that the U.S. Congress wants to reduce bureaucracy in U. S. assistance programs and, simultaneously, to help foreign government agencies develop their capacity to utilize the U. S. technical assistance. While these are laudable objectives, the inexperience of host-country institutions with this type of arrangement may compound existing problems.

For example, host-country contracting necessitates a juxtapositioning of budgets for technical advisors alongside those for host-country personnel. Salaries and other amenities such as post differentials, housing, etc. make the sum invested in a technical advisor very high relative to what is paid his host-country counterpart. However, unless the salaries and benefits offered to potential technical advisors are competitive with what they can earn in alternative employment in the U. S., top quality scientists cannot be induced to service technical assistance projects. Officials of host-country agencies experience severe pressure to resist these high prices when they are given the decision making power and are thereby exposed to public indictment. This happens even where USAID grant funds can only be used for technical assistance and USAID administrative guidelines generally support project costs as they prevail today.

An even more basic dilemna than the host-country contracting problem is posed by the U. S. technical assistance program being managed within the State Department and viewed as an integral part of foreign policy. This organizational structure dictates that technical assistance is often maneuvered with the primary objective of furthering United States interests (as then defined). Administrators of host-country agencies,

hungry for resources to supplement their meager budgets, are often forced to either accept concessionary agreements that are almost completely unileteral or make involuntary reciprocal agreements on political, military, or other matters that have no direct bearing on development needs or objectives.

Furthermore, the nature of foreign policy operations tends to preclude success in technical assistance programs, especially in agriculture. First, conversion to a modern agriculture requires a relatively long gestation period, while the pressures that define day-to-day foreign policy are often volatile. The resultant assistance projects have time horizons that are much too short for developing the institutional capability essential to a modern agriculture. Second, the foreign policy interests of the United States may be contrary to those of the developing world. A good example is the P. L. 480 wheat program. We thereby placed our surplus wheat in the markets of developing countries, often in direct competition with local production, which sometimes militated against an upgrading of local agriculture.

The political aspects of technical assistance is compounded by the internal workings of USAID. For example, the tenures of all key administrative positions (Directors, Program, Capital Development, and Rural Development Officers) at any foreign post are likely to endure only two to five years. Within that period, the individuals must demonstrate innovativeness and an ability to effectively move large sums of grant and loan funds to the host-country. Simultaneously, they must be responsive to guidelines from Washington that reflect shifts in foreign policy stance. These circumstances encourage program changes with changes of Director and principal staff.

As long as technical assistance remains in the State Department and is wedded to foreign policy decisions, not even vast investments of money and technical competence are likely to materially improve the world's food situation. Such a system will continue as in the past to more often address symptoms than causes.

A Suggested Reform

The principal constraints that are minimizing the Land Grant University System's participation in the technical assistance program of the United States can be overcome in any of several ways. But federal intervention is fundamental to each.

Making technical assistance part of the recognized mission of the land grant universities is the most basic reform needed within the university system. Such a revision would facilitate removal of the other constraints, especially the lack of incentives. States per se have no motivation to provide such a mandate. Only federal legislation can expand the mission of the Land Grant Universities to include technical assistance, and provide funding on an ongoing basis (so called "hard" funds).[5/] Historically, federal intervention has been successfully used to develop effective Experiment Station and Extension Service missions for land grant universities. Despite the disimilarities, there is good reason to believe that the same concept could be equally successful if applied to technical assistance.

Unfortunately, such revision of the Land Grant University System would not be sufficient by itself. Resolving the world's food and related development problems also requires elimination of the constraints

inherent in the existing technical assistance program. Where it exists, the host-country contracting constraint seems uniquely recalcitrant to unequivocal solution, given the insistance of USAID in some local situations. This position obviously needs to be reconsidered.

Depoliticization of the U. S. technical assistance program by removal from the arena of traditional foreign policy is also necessary. This implies a drastic restructuring of both the philosophical basis and the organizational design of technical assistance to make it operational as the philanthropic program it is sometimes argued to be. By so doing, the expediency of the United States' self interests would be replaced by a long-term commitment to increasing food production in the developing world. Admittedly, such a concept of technical assistance may not be readily accepted by either Congress or the electorate. But today's famines point dramatically to our failure to achieve significant success in solving the world food problem during the past twenty years. Neither humanitarism nor self interest have been well served by a technical assistance program that owes first allegiance to the demands of transitory foreign policies.

The proposed revisions require the creation or designation of a new administrative structure divorced from both traditional foreign policy concerns and vested domestic interests. Several alternatives are available and all have their deficiencies. Agencies such as USAID, and USDA, could not adequately perform the necessary supervisory function as they are now conceived. However, USAID could conceivably be renovated to fill this role if care were given to insure its being divested of a need to primarily serve a narrowly defined U. S. self

interest. But the transition would be difficult.

If Land Grant Universities receive legislative sanction to address the world food problem, they become a possible choice for administering the technical assistance program. The same federal legislation that legitimizes the role of Land Grant Universities in technical assistance could also give the Council of Land Grant Universities authority to administer both loan and grant technical assistance programs. However, the university system suffers from its own internal political snarls, which could complicate optimum allocations of available funds where other than state interests are to recognized. International organizations such as FAO and the World Bank likewise suffer from internal politics that limit their ability to administer an apolitical technical assistance program.

The requisite revolutionary change in philosophy that would carry us to a more effective technical assistance program may have to simultaneously create a new institution, dedicated entirely to promoting nonpartisan agricultural development and free of any existing governmental or international institution.

Summary

The imponderable now, is time. Certainly it is in short supply if we honestly hope to improve the world's prospects for food production before we pass the point of no return. The requisite scientific skills exist in a uniquely concentrated form in the U. S. Land Grant Universities but they can have only minimal effect under the current system. Incentives must be created that will focus the competence within the

system on increasing agricultural production in the developing world. We must move quickly toward a philosophy and organizational structure that will facilitate an imaginative and vigorous attack on these problems. A constructive dialogue to define the nature and scope of the needed reforms is already long overdue.

NOTES

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1. The list of popular specialty areas includes: soils, plant, dairy and animal scientists and veterinarians; agricultural economists, educators, and engineers; irrigation, drainage and related engineers; range, forestry, and related areas of natural resource management; nutritionists; and sociologists.
2. This emphasis on technical assistance is based on the current exorbitant cost of direct food aid programs, a belated recognition of their failure to resolve the basic supply problems, and the notable potentials for increasing agricultural production in most developing countries.
3. In a letter survey of ten universities conducted by the authors in April, 1975 (seven of the universities responded), on average, 30 percent of the long-term assignments (2 years or more) were recruited outside the regular university staff. The range was from 78 percent to 11 percent. No evaluation was made of individual staff excellence.
4. This point is often unappreciated by donor agencies and host government institutions in the light of what they perceive to be "astronomical" salaries.
5. The Findlay Bill currently under consideration in the congress is an important first move in this direction.