Science Gets Short End in Foreign Aid Funding

A cut in the budget for the Agency for International Development, together with protection of some favored programs, has reduced funds for Africa and agriculture

THE U.S. foreign aid program has seldom enjoyed smooth sailing in Congress, but 1986 was a particularly turbulent year. Funds for sub-Saharan Africa, for example, the region with many of the poorest countries and the most severe development problems, were cut more than 20%, despite efforts to shield the program. The budget squeeze forced Congress and the U.S. Agency for International Development (AID) not only to make harder choices than usual on funding, but to reappraise aid programs and policies. In the process, programs with a heavy science and technology content sustained substantial cuts. A major loser was agricultural research, which over the past 2 years has suffered a funding slash totaling 30%.

How this happened was determined by the dynamics of foreign aid budgeting. Foreign aid may originally have implied financial and technical assistance for economic development with at least partly altruistic motives, but strategic considerations have come to dominate the program. Of the $16.6 billion finally appropriated for international affairs for the current fiscal year, 1987, about $8.5 billion was earmarked for international security assistance, some $6 billion of that for military assistance. Of $6 billion designated for economic assistance, only an estimated $2.1 billion is in the category of development assistance that fits the simple definition of economic aid to poor countries. Another $3.9 billion is available in so-called economic support funds used to promote economic or political stability in areas where the United States has special strategic interests.

In foreign aid budget-making, the key word is "protection." Certain countries and programs are accorded preferred status. Paramount among these are Israel and Egypt as a result of the Camp David accords. Congress has guaranteed that Israel will receive $3 billion and Egypt $2.1 billion this year. Other countries—particularly those in which the United States has bases or other special interests—have special standing, notably Greece and Turkey, Spain, the Philippines, Pakistan, and favored Central American nations.

In its early years, the Reagan Administration tried to increase international security assistance and reduce development assistance, but these efforts were resisted by Congress. Last year, under pressure to lower the deficit, Congress cut the Administration's $22-billion total international affairs request to $16.6 billion. Such major cuts put heavy pressure on the unprotected parts of the program, notably the development assistance portion, which includes many programs for Africa and science and technology funds. According to AID assistant administrator for program and policy coordination Richard E. Bissell, development assistance funds for Africa were cut from $376 million in 1986 to $323 million in 1987 and economic support funds from $245 million to $163 million.

Funds for agricultural research were cut 17% for 1986 and by a further 13.5% this year.

Under budget stress, Congress tried to impose its own priorities on the aid budget by increasing its practice of "earmarking" particular programs and requiring that they receive funds. In general, activities with heavy science and technology content did not benefit from such solicitude. These activities, grouped in so-called functional accounts, include agriculture, population planning, health, child survival, education and human resources development, and science and technology. The exception to the rule of reductions or level funding was child survival, earmarked for an increase to $75 million from $36.5 million the year before. The largest cut came in the agriculture sector, which went down from $760 million to $645 million.

The agriculture account is used mainly to finance agricultural development projects, but includes funds for supporting rural development activities and forestry projects. The latter are regarded as important in achieving environmental goals in areas like the ecologically fragile Sahel region of Africa.

AID senior assistant administrator for science and technology Nyle C. Brady, who sees the funding cuts as a product of congressional restraints and the agency response to them, says he is concerned about the effect of the cuts on progress being made in agriculture and in improving the environment, but also that programs being cut "tend to deal more with the future."

Over the last 2 years, AID funds in the central account designated specifically for science and technology activities have been reduced from $283 million to about $220 million. The major item in the AID agricultural research portfolio has been funding for the international agricultural research centers that provided the main plant varieties for the Green Revolution. AID had maintained U.S. funding for the international centers until the recent budget showdown, when AID's contribution was reduced from $45 million to $40 million. Roughly half of central funds available for agricultural research have been going to the international centers. The total available for support of agricultural research was cut 13.5% in the current budget, following a 17% slash for 1986.

Most observers say the cuts do not reflect disenchantment with agriculture projects or agricultural research. The outcome is attributed to the structure and priorities of the aid budget. Items earmarked by Congress tend to have humanitarian appeal, such as the child survival funds, or strong lobbies behind them.

Details of the budget were not settled until the waning days of the session when Congress struggled to complete the continuing resolution embodying the cuts required under the deficit reduction formula. Because of the conditions of haste and confusion in which the final version was assembled, the consequences of some of the actions taken are still being worked out.

The funding fight left the participants dissatisfied. In Congress, partisans of development assistance to Africa were prominent among the discontented. New legislative approaches to increasing the flexibility of aid funding are being backed in both the Senate and the House. One area of concern is the functional accounts that seem to make the programs in them sitting ducks in budget season.

At AID, the funding emergency impelled the agency to make contingency plans for radical reductions in the budget, with the

work done in the atmosphere of a bureaucratic fire drill. AID's worst case scenario did not materialize, but the exercise, reportedly, gave AID a revised set of program priorities and a more receptive attitude to changes in the way the functional accounts are handled.

The Administration announced at the end of the year that it will seek $1.3 billion in supplemental foreign aid funding for the current year and major increases in next year's budget. The 1988 request includes a $500-million special fund for Africa designed to compensate for the cuts imposed this year. Whereas the Administration was criticized for giving feeble support to its own aid program last year, now, at least, it is talking a better fight.

Deficit pressures are unlikely to decrease or the claims for military assistance to ease much, but the disarray over foreign aid appropriations seems to have spurred those involved to try to restore a sense of proportion to the process. ■ JOHN WALSH

Boland, NASA at Odds Over Launch of Mars Observer

In the high-stakes tussle over space shuttle launch schedules, international commitments, and the National Aeronautics and Space Administration's procurement of expendable launch vehicles to augment the shuttle, a mission known as the Mars Observer has become the political football. The lineup is NASA and the planetary science community, versus Representative Edward P. Boland (D–MA), chairman of the House appropriations subcommittee that oversees NASA.

In brief, the argument is over NASA's plan for flying off its backlog of planetary missions in the wake of last year's Challenger accident. Assuming that the shuttles start flying again in 1988, as now planned, NASA will have four planetary spacecraft ready for launch in the 1989–1990 time frame: the Galileo mission to Jupiter, the Ulysses mission to explore the polar regions of the sun, the Magellan radar mapper mission to Venus, and the Mars Observer mission to measure the geochemical cycles of Mars. However, given the constraints imposed by celestial mechanics, launch safety, and competing priorities, the shuttle will only have three planetary launch slots available in those years. So something has to give, especially considering that NASA has not yet settled on a plan for procuring any expendable launchers to take up the slack.

Agency administrator James C. Fletcher accordingly announced in December that the launch of the Mars Observer would be delayed for 2 years, until 1992. It was the logical choice, he argued; the other three missions have been waiting even longer. (Galileo was first funded in 1977.) The delay would be unfortunate, especially considering that the Soviet Union plans to launch two ambitions Mars missions of its own about then. But choices have to be made.

Enter Representative Boland. In a letter to Fletcher dated 30 December 1986, he and his Senate counterpart, Jake Garn (R–UT), proposed an alternative: use the three shuttle slots to fly Galileo, Magellan, and Mars Observer by 1990. Then, in 1991, fly Ulysses on a new Titan IV vehicle of the type being developed for the Air Force. Not only would this approach allow NASA to gain experience with the Titan IV, which could then be used for future planetary missions, but it would still allow Ulysses to begin returning data 2 years before Galileo, even with the launch delay. Indeed, Boland and Garn liked their alternative so much that they even offered to help NASA out with some extra money in the budget.

Back at NASA, however, the Ulysses/Titan IV option looked like a very bad idea. Ulysses is a joint project with the European Space Agency, and has suffered quite a few delays already; adding yet another delay would be highly embarrassing to NASA at the very time it is trying to secure European cooperation on the space station. From a technical standpoint, meanwhile, the spacecraft's radioisotope generators are inexorably fading as their plutonium power sources decay away. Power reserves would be marginal for a 1991 launch, and would be unacceptable if any further glitches forced a delay to the 1992 launch opportunity. Furthermore, it is not at all clear that a Titan IV would be available for a 1991 launch; if the shuttle schedule slips again—as many observers think it will—the Air Force will want to use all the expendable vehicles it can find.

On the other hand, Fletcher was hearing loud protests from the planetary community for his decision to delay Mars Observer. Thus, on 16 January, he countered with his own proposal: keep the first three missions on the shuttle, and launch the Mars observer in 1990 on a Titan 34D. The latter vehicle is readily available. It is roughly half the cost of its $250-million big brother. And it would get everybody launched on schedule. Indeed, the Titan 34D/Mars Observer option has been endorsed by both congressional authorization subcommittees, by General Lew Allen, director of the Jet Propulsion Laboratory, and by NASA's own internal study groups.

Representative Boland. *A struggle over launch schedules.*

On 21 January, however, Boland wrote back to Fletcher: if NASA did not want to do things his way, then NASA was welcome to fly the Mars Observer on the shuttle—in 1992. Whereas the Titan IV represents a forward-looking technology, he said, the Titan 34D does not; augmenting the agency's budget by the $100 million required to support a Titan 34D launch in 1990 would therefore be a poor investment.

Observers within NASA and the planetary science community find Boland's argument unpersuasive, to say the least. In fact, there is widespread suspicion that Boland and his staff are actually following a kind of "America First" strategy, with the Titan IV option simply an excuse for delaying the European Ulysses mission. However, Boland's committee staffers deny the allegation categorically. Boland himself was unavailable for comment.

In any case, the Mars Observer has by now become a minor cause célèbre on Capitol Hill. A letter-writing campaign organized by the Planetary Society, a Pasadena-based space interest group, has resulted in some 14,000 letters on the issue to Congress and to NASA. The betting now is that the Titan 34D option has already garnered enough support that it probably will prevail. ■ M. MITCHELL WALDROP