ment of Agriculture for cooperative research on using physical instrumentation and sophisticated chemical tracers to study agricultural problems—bringing with it new uncertainties about funding and additional administrative chores.

The AEC itself, with a new administration and a recently broadened charter that permits a wider range of research efforts, is supporting some of the laboratory's moves toward diversification. Work for outside agencies up to about 20 percent of LASL's budget would be permitted, according to the AEC. But that leaves substantial limits, imposed in Washington, on how far the laboratory can go in broadening its activities. The AEC attitude is one of encouraging diversification as long as the laboratory does not go all out. In addition, the AEC is concerned that the weapons work, which it still views as LASL's main mission, not be neglected nor jeopardized by siphoning the laboratory's most talented people off onto new projects.

The weapons work itself has changed character since the early years, when building the bomb at all was the job, to the more tedious but routine task of matching a device to its particular military mission. At Los Alamos, the weapons research is depending more and more on computing as design and even simulated testing is carried out by means of sophisticated computer programs. The laboratory has become increasingly involved with nonnuclear weapons, such as lasers, which constitute the fastest growing part of LASL's budget. And despite the generally improving relations with the U.S.S.R. over the past 10 years, the weapons budget at LASL has increased 60 to 70 percent in that period.

Weapons work is not the most exciting part of LASL's research, for most of the staff. Indeed, among younger scientists associated with some of the newer, nonmilitary projects weapons work is regarded with some disdain, although the staff does not seem to be strongly polarized on the subject. The LASL administration looked on tolerantly during the one antiwar demonstration that took place at the laboratory but has made it clear that staff members must be sympathetic to LASL's main mission, with the result that the staff is for the most part, as one administrator described them, "a pretty hard-hat bunch."

Whether the laboratory can remain intellectually vigorous on a steady diet of weapons development is an open question. Some staff members believe that LASL's health and productivity in the long run might well depend on how successfully it can diversify, and they point to LAMPF and other new projects as where the action and excitement are within the laboratory. Others hope that LASL, along with the other AEC laboratories, will be transformed into real "national laboratories." A total test ban treaty or other possible SALT agreements might have significant impact on the character of the laboratory, but whether it would mean cuts in its weapons work or an expansion of, for example, its theoretical and computational weapons research is uncertain. But in the absence of such dramatic changes, diversification seems likely to be, at best, a gradual process at LASL. In the meantime, Agnew told *Science*, "We intend to continue being the best weapons lab in the country as long as the Department of Defense asks us to."

—ALLEN L. HAMMOND

U.N. Environmental Program: Despite Hitch, Coming on Strong

Until last week it appeared that the recommendations of the United Nations Human Environment Conference in Stockholm last June would be translated smoothly into a new U.N. environmental program. It is true that the original script had been altered substantially when a coalition of developing countries engineered the locating of the proposed Environment Secretariat in Nairobi, Kenya, rather than in Europe, but the change in venue had been taken in stride in New York. Then on 6 December, it was reported that Maurice F. Strong, chief organizer of the Stockholm conference and presumptive head of the new environmental program, had sent a letter to U.N. Secretary General Kurt Waldheim resigning his current job and taking himself out of the running for the prospective permanent post.

By noon the next day Waldheim had announced he would nominate Strong as first executive secretary of the Environment Secretariat, and Strong had indicated he would let the nomination be considered by the General Assembly. There was no official account of what had occurred between Wednesday and Thursday, but the matter is regarded as settled on terms satisfactory to Strong by those close to him. Whether a letter of resignation was actually sent but returned, as was reported, is a matter of polite dispute, but there is no real doubt that Strong had reached the point of going to the mat on how the new program was to be run. The underlying issue seems to have been Strong's misgivings over how the new program would function within the U.N. structure.

As a big international civil service, the U.N. bureaucracy is almost by definition cautious and unwieldy. In addition to tortuous inner politics, the United Nations in recent years has been relatively short of funds. It is therefore not surprising that, within the secretariat, the new environmental agency might be perceived as a rival for money and a potential administrative maverick.

Strong, a successful industrialist before he became head of Canada's International Development Agency, has had a clear and consistent idea of how a U.N. environmental program should operate since well before the Stockholm conference and has been determined to ensure the program more flexibility than is usual within the U.N. framework. To an extent remarkable in U.N. affairs, Strong has established a personal constituency that cuts across regional, political, and economic lines, and observers say this allowed him ultimately to win assurances of the

sort of independence he feels are necessary.

Whatever assurances Strong received last week, however, do not guarantee that the environmental program will be free of serious pressures in the future. Some observers feel, for example, that last week's showdown was precipitated at least in part by higher costs and organizational problems generated by the decision to locate the secretariat in Nairobi.

The assumption had been that the small secretariat would be situated near other major U.N. facilities and would probably end up in Geneva. There its staff would have had relatively easy access, not only to the World Health Organization (WHO) and other U.N. offices in Geneva, but to the United Nations Economic, Social, and Cultural Organization (Unesco) in Paris and to the Food and Agricultural Organization (FAO) in Rome. Since the Environment Secretariat is designed primarily to play a coordinating function, the United States and other industrialized nations argued that efficiency dictated such a site. But when the vote came in the current U.N. session it was 93 for Nairobi, 30 abstentions, and only the United States voting against.

The choice of Nairobi is thought to be due less to the ardor of Third World nations for the environmental cause than to cumulative resentment that no major U.N. facility has been located in a developing country.

Representatives of the United Nations and other industrialized nations have reacted diplomatically by finding merits in the choice of Nairobi. For example, there had been serious apprehensions before Stockholm that the developing countries might not cooperate in the environmental effort because of suspicions that developed countries would use environmental arguments to deter development in the Third World. Now it is suggested that by making Nairobi the site of the environmental "center" the developing countries have a stronger stake in the success of the program.

One practical effect of the choice of Nairobi will be higher costs—estimates of the new secretariat's annual operating budget were increased to $2.3 million from $1.3 million after the decision. It is anticipated that staff members will do a lot of traveling, and small liaison offices will probably be opened in both Geneva and New York.

The key moves on the selection of a site occurred this fall when the report of the Stockholm conference came before the General Assembly's so-called Second Committee, which deals with social and economic issues. The question of a site had been left open at Stockholm, and about a dozen proposals were submitted, including bids from Cyprus, Malta, Mexico City, and New Delhi, in addition to

POINT OF VIEW

Crusades on Cancer: A Doubting View

The enormous outlays that President Nixon has promised for his crusade on cancer pose a humanitarian challenge to other scientifically capable countries to do likewise. Only with difficulty, it is said, did British civil servants prevail upon Prime Minister Edward Health not to dispatch a precipitate telegram of support to Nixon but to wait until hearing Lord Zuckerman's opinion of cancer crusades. Zuckerman, who was chief scientific adviser to the British government until his retirement last year, has now issued a report [Cancer Research *(Her Majesty's Stationary Office, London, 1972)*] *which makes clear he sees little scientific justification for Britain to join the crusade.*

The effect of the American initiative is difficult to foresee, particularly since details of the various programmes are not yet available. However, one thing which is fairly certain is that the disbursement of hundreds of millions of additional dollars on cancer research in the next few years is bound to make a considerable impact on public opinion, both in the States and also abroad. While the new money and the increasing volume of research that it will permit cannot guarantee the discovery of any cures for cancer, it will certainly increase the pace of biomedical research. It also carries the danger that the public's expectation may well be aroused that a cure for cancer can be found, and found quickly and, very probably, that false hopes will be raised in the minds of people now suffering from cancer, and in those of their families. . . .

It is fully recognised that scientific talent of the quality necessary to deal with the exceptionally difficult problems associated with cancer is in short supply. In my own view, any campaign which sets out to buy a cure for cancer without the most careful and thorough preliminary long-term planning is in danger of encouraging mediocrity and the routine pursuit of ideas which may long since have ceased to be fertile. Creative research depends on scientists of proved ability, and on training programmes and the provision of career prospects for such people. . . .

It has been suggested that if we do not reinforce our research effort into cancer, British scientists will be completely overtaken by the Americans as soon as the 1971 Act comes into force, and as soon as hundreds of millions of new research dollars start flowing. There is probably something in this. The provision of such enormous resources, and of the high-class scientific manpower it might attract (including scientists from countries other than America), are bound to produce results, even if they are not commensurate with the investment. Against this view, however, is the fact that, in spite of the vast disparity in the research expenditures of the United Kingdom and the United States, our contribution to the recent basic discoveries that have transformed our knowledge of cancer has been outstanding. . . .

My general conclusion is that, with certain exceptions, a sudden increase in funds for cancer research could not be effectively used. A steady and substantial increase over the years would probably yield valuable results. . . .

Nairobi. The Nairobi prospectus was apparently particularly attractive, and it was known that Kenya president Jomo Kenyatta was keen on having the secretariat headquarters in Nairobi. After consultation, the developing nations closed ranks behind the Kenyan proposal and swung the vote to Nairobi.

The whole conference report including the site question is now before the Fifth Committee, which acts on budgetary matters. The Fifth Committee is expected to approve the package of proposals and send it on to the General Assembly for plenary action before the Assembly breaks for the holidays.

The conference report contained two main elements—a declaration of principles and recommendations for action and a proposal for new U.N. machinery to carry out the program. The major components of this machinery would be a Governing Council for Environmental Programs, a policy-making body; the Environment Secretariat with about 20 professionals headed by an executive director, putatively Strong; and an Environment Fund, a fund created by voluntary contributions by U.N. member nations to finance the broader aspects of the program. President Nixon has indicated he would seek an American contribution of up to 40 percent of $100 million over 5 years. Pledges from other countries have reached about $40 million so far, so it appears that the fund will reach $100 million for 5 years.

The committee resolution contains the elements Strong regarded as essential to the environmental program and which he navigated successfully through the conference at Stockholm.

From the outset, the environmental effort had been endangered by the suspicions of the developing nations. Strong recognized this early and worked hard and apparently successfully to gain rapport with Third World governments. And assurances that their views are given weight are included in the conference declaration, particularly in two of the "principles":

> The environmental policies of all States should enhance and not adversely affect the present or future development potential of developing countries, nor should they hamper the attainment of better living conditions for all, and appropriate steps should be taken by States and international organizations with a view to reaching agreement on meeting the possible national and international economic consequences resulting from the application of environmental measures.
>
> Resources should be made available to preserve and improve the environment, taking into account the circumstances and particular requirements of developing countries and any costs which may emanate from their incorporating environmental safeguards into their development planning and the need for making available to them, upon their request, additional international technical and financial assistance for this purpose.

The developing nations' suspicion of environmentalism is one expression of their attitude toward industrialized nations that underlies a serious division within the United Nations. In recent years, and particularly since the Vietnam war, the United States, the most affluent of the affluent nations, has been consistently singled out and accused of political and economic imperialism.

From its early days, the United Nations has been divided into power blocs —East and West and Third World groupings were the major initial alignment. In recent years, developing nations in Asia, Africa, and Latin America have been increasingly effective in acting together to gain common objectives. In the vote on Nairobi, they got what they wanted plus a dividend tweak of the American eagle's tail feathers.

The suspiciousness of the developing countries has not been the only obstacle faced by the environmental program. A dispute over the status of East Germany at the Stockholm meeting resulted in a boycott by the Soviet bloc nations. The Soviets, however, appear to have had no trouble accepting the Stockholm proposals, and an understanding seems to have been sealed by an agreement to increase the number of seats on the Governing Council from 54 to 58 and to reserve two seats for East and West Germany, which are expected to be admitted to U.N. membership shortly.

Potential Opposition

Within the United Nations, the Environment Secretariat faced potential opposition from the U.N. specialized agencies such as Unesco, FAO, and WHO, which are hungry for funds and, like the central secretariat, see in the Environment Secretariat a potential competitor for funds and an intruder on their authority.

Strong seems to have sought to forestall infighting by making clear that the new secretariat was intended to play a coordinating role and that the specialized agencies would have a primary claim on money from the Environment Fund for relevant programs.

The clash between Strong and the secretariat seems to have been essentially over management questions, and control of the fund doubtless figured significantly. The Environment Secretariat itself is to be financed out of U.N. general funds. Strong's staff will not be a panel of experts on environmental matters, but a small corps of administrative go-betweens concerned with the environmental field. When expert studies or technical advice are needed, Strong plans to use outside consultants. He has insisted on being able to pay for such work out of the Environment Fund, and flexible contracting authority was reportedly a fundamental issue in the recent flare-up.

As for specific projects the new secretariat will undertake, at this point it is clearest what the agency will not do. Funds are too limited in relation to the size of environmental problems for the United Nations to finance major environmental projects in individual countries. If a country needs help in building a sewer system for a city, for example, the Environment Secretariat might provide technical assistance and advice on how to secure financing, but it would not fund the construction itself.

As one U.N. official described it, the focus will be "global environmental problems"—that is, problems that transcend national boundaries. An "Action Plan" embodying 109 recommendations was adopted at Stockholm as part of the program. These recommendations fall into three broad categories described by Strong in a statement to the U.N.'s Second Committee:

> A far-ranging *Earth Watch Program* of global assessment and monitoring, to help provide the knowledge required to enable societies to evaluate the real consequences of the decisions by which they are shaping their own futures;
>
> *Environmental Management Activities* to assist in implementing these decisions;
>
> *Supporting Measures* in the fields of public education, technical and financial assistance.

The outlines of the program should be more sharply defined after the council has its first meeting in June. The working assumption is that the major beneficiaries of the program will be the

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NEWS AND COMMENT

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developing countries, which have a special need for research and education in the environmental field.

If the General Assembly acts favorably, as expected, the next crucial question for the environmental program will be the response of the United States, or, more specifically, of Congress. The new U.N. enterprise is being proposed at a time when the United States—the major "donor" country—is having difficulties with both its international balance of payments and its balance of popularity. America's foreign economic policy and the operations of U.S. companies have roused resentment, particularly in some developing countries with intractable economic problems. Criticism of the United States has become almost a ritual in U.N. proceedings, and anti-U.S. feeling reached a sort of apogee in the expulsion of Nationalist China from the United Nations. The hostility of developing nations toward the United States has found its reciprocal in Congress, and many legislators have cast a cold eye on U.S. funding of the United Nations.

This autumn, the Administration has sought a reduction of the U.S. contribution to the U.N. operating budget, from about a third to a quarter of the annual budget. The recent acceptance of this adjustment at the United Nations had considerable significance, since rejection would have caused an exasperated reaction from Congress and would likely have prejudiced congressional attitudes toward the environmental program. The developing nations apparently recognized the relevance of the vote to the American contribution of about 45 percent of U.N. voluntary funds, which finance programs that are especially important to these nations.

American officials who handle dealings with the United Nations say that the congressional attitude toward the environmental program is by no means predictable. But they see encouraging signs in the fact that Strong has a good reputation and that the Nixon Administration apparently has a firm commitment to the idea; they also think the argument for an attack on global environmental problems is persuasive. Action on the U.N. environmental program will be a good indication of how Congress is reconciling itself to the evolving arrangements at the United Nations about paying the piper and calling the tune.—JOHN WALSH