

U.S. Derails Energy Plan for Third World

For a small budgetary saving, the Reagan Administration says it will not support a new international energy agency

The Reagan Administration has derailed an ambitious international proposal to help Third World countries develop their energy resources. Its action, together with the decision to try to wring more concessions from the Law of the Sea negotiations, has got the new Administration off to a potentially calamitous start in its relations with the developing world. All this for a savings of perhaps \$250 million in the federal budget.

At issue is a plan to establish a new institution, linked to the World Bank, that would channel some \$30 billion into Third World energy projects over the next 5 years. The plan, which has been under discussion in the World Bank and among its member countries for several months, would more than double the Bank's lending for energy development in oil-poor developing countries. A firm proposal was expected to emerge this spring, in time for the economic summit meeting scheduled to take place in Ottawa in July.

Late last month, however, the Reagan Administration told the World Bank that "at this time, the United States can neither support the creation of nor participate in" the proposed institution. The message was delivered by Colbert I. King, the U.S. representative on the Bank's executive board. Two weeks later, King, a Carter appointee, resigned with a letter to Reagan warning that "now is not the time to undermine our influence in the World Bank and global economic development."

Although the Bank could, in theory, launch the new energy affiliate without U.S. support, it is unlikely to do so. Such a move would raise complex questions about how the institution would be financed and governed. It would also be difficult, without U.S. backing, to locate the affiliate in Washington along with the rest of the World Bank's head offices. Other industrial countries, moreover, would be less inclined to support such an ambitious new venture.

Unless the Administration changes its mind, the proposal is "dead in the water," says one U.S. official who has participated in the discussions. Asked whether that is indeed the case, Moeen

A. Qureshi, the Bank's senior vice president for financial affairs, said in an interview that "there would be very serious concern on the part of the members of the World Bank if the United States is not associated with the affiliate. I very much hope that the United States will reconsider." Qureshi, who has been heading the World Bank's study of the new institution, said that he is now discussing with the U.S. and other governments how to proceed.

The idea of establishing a new World Bank energy affiliate stemmed from mounting international concern about the crippling impact of oil price increases on many developing countries. Last year, oil-importing Third World countries paid oil bills amounting to more than \$50 billion. The massive payments have soaked up a growing share of the export earnings of many of these countries, strained their ability to pay for essential imports, and slowed down their economic development.

Unlike the industrial countries, most Third World nations have been unable to offset increases in their oil bills by stepping up exports to oil-producing countries. Thus many have been forced to borrow heavily from commercial banks to finance their oil imports and to help fund development projects. As a result, the combined debt of the Third World has reached a staggering \$300 billion, and several countries have come close to their borrowing capacity. This growing mountain of debt is already straining the international financial system and causing repayment difficulties for some countries. And matters could get worse. According to World Bank projections, the combined oil bills of the oil-importing developing countries will double during the 1980's, even without another major price hike.

This grim prospect has led many observers to point out that it would be in the self-interest of the industrialized countries to assist the Third World in developing its own energy resources. Early last year, for example, the Brandt Commission, a group of leaders from rich and poor countries headed by former West German Chancellor Willy Brandt, urged that an emergency pro-

gram of energy development be launched in developing countries. Western political leaders also considered the matter of such importance that they issued a communiqué from last year's summit meeting in Venice, asking the World Bank to look into the possibility of setting up a new institution or some other mechanism to fund energy programs in developing countries.

The Bank had already sharply in-

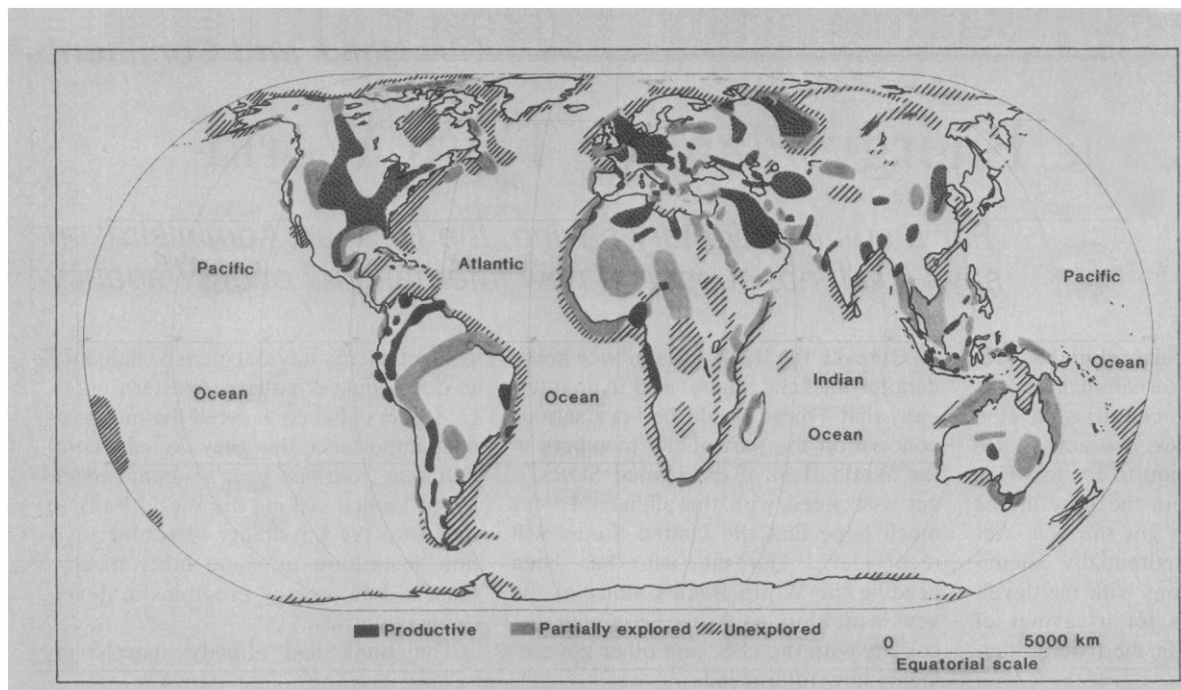


World Bank/Kay Chernush

Wind power in Kenya

created its lending for energy projects. In 1977, it broadened its traditional operations, which mostly involved funding for electric power generation, to include support for oil and gas production. Two years later, it moved into oil and gas exploration and stepped up its work in other areas. In the past 2 years, the Bank has loaned more than \$4.5 billion for energy projects, making it by far the largest source of public funds for energy development in the Third World.

In the wake of the 1979 oil price increases, the Bank took a searching look at its lending program to see whether it should do even more to stimulate energy production in oil-poor Third World countries. Its conclusions are sobering. Unless a major effort is launched to help



Petroleum basins

The World Bank is helping developing countries explore for oil and gas because it believes that some areas have been inadequately surveyed.

these countries to produce more energy and use it more efficiently, the Bank estimated that they will have to import 7.6 million barrels a day by 1990, a 70 percent increase over current levels. This would be almost impossible to finance. Moreover, the Bank pointed out, many developing countries are already facing an acute shortage of firewood, which is seriously undermining the well-being of the poorest people and creating ecological damage on a vast scale as hillsides are stripped bare of trees.

The Bank is already planning to lend \$13 billion for energy programs between 1981 and 1985, but the study concluded that an investment of \$25 billion would be needed to reduce Third World oil imports to manageable proportions. A program of that scope could not be accommodated by the Bank's existing structure without draining money from critical areas such as health, agriculture, water supply, and education. "A program that would be expanded out of our own resources would not be an adequate response to the needs of the developing countries," says Qureshi. Hence the idea of launching an energy affiliate.

Although few people are willing to talk on the record about how the affiliate would be financed and controlled—the Bank's traditional secretiveness is reinforced in this case by the delicacy of the negotiations—about a dozen people inside and outside the Bank agreed to discuss the plans with *Science* if their names were not used.

World Bank officials see the affiliate as a way to raise large sums of money for Third World energy projects without requiring major helpings of cash from donor governments. This neat trick would

work by having the new institution borrow money through the world's capital markets, with member governments providing guarantees for a portion of the loans.

Although the exact amounts have not been worked out, member governments of the affiliate would contribute directly about \$1.0 billion to \$1.5 billion and provide guarantees for loans up to \$10 billion to \$15 billion. Thus if the affiliate raised \$30 billion on the capital markets, one-third to one-half of its borrowing would be backed by government guarantees. The World Bank itself operates in a similar fashion, but it is bound by its charter to borrow only up to the amount guaranteed by its member governments.

Like the World Bank itself, the affiliate would lend to Third World governments for specific projects, and the governments themselves would put up some money of their own. In most cases, private industry would also put some capital into individual ventures. The affiliate's share of the total cost of the projects it supports would probably amount to less than 30 percent. In other words, for an initial capital outlay of \$1.0 billion to \$1.5 billion, member governments of the affiliate would help stimulate energy projects worth a total of perhaps \$100 billion—a pretty good way to get maximum use out of a small investment of public funds.

A second novel feature of the affiliate is that some OPEC members were expected to play a substantial role in its financing. World Bank officials have been discussing the possibility of OPEC countries providing not only part of the initial funds and the government guarantees but also some of affiliate's loans.

"We clearly see the affiliate as a way in which the capital surpluses of the oil-producing countries could be recycled into energy development in the developing countries," says Qureshi, who was one of the few World Bank officials to agree to an on-the-record interview.

Why would OPEC countries be interested? "They know damn well that the increase in oil prices has put quite a number of developing countries up the creek," and they are anxious not to lose Third World support in their dealings with the industrialized world, argues one Western diplomat. Only a few OPEC countries have large surpluses of capital, however, and of those only Saudi Arabia, Kuwait, the United Arab Emirates, and eventually, perhaps, Iraq would be likely to make much of a direct contribution to the affiliate. Some observers also speculate that these countries may not be willing to go along with the affiliate until a long-term oil-pricing policy has been worked out within OPEC, for fear of antagonizing countries such as Libya and Algeria. Nevertheless, Bank officials were hoping that perhaps 20 percent of the affiliate's direct support would come from OPEC.

The Bank opened discussions on the affiliate with several governments last fall. An informal group, consisting of representatives from about nine countries, including Saudi Arabia and Kuwait, oil-importing developing countries, and industrialized nations, also met in November and early February to discuss the idea. All the participants supported the concept, according to Qureshi.

The Carter Administration was certainly behind the proposal. An interagency task force, coordinated by the Nation-

al Security Council, said in an unpublished report last October that U.S. investment in the affiliate would result in "very large benefits in energy, foreign policy, development, and international trade and finance. This would be among the most cost-effective programs in the U.S. energy budget."

Why, then, did the Reagan Administration decide not to participate in the affiliate? The first reason is budgetary. Although the U.S. share of the initial capital would probably be only about \$250 million spread over a few years, plus loan guarantees of \$2.5 to \$4 billion (which would be unlikely ever to be called upon), the Administration decided not to support the venture while it is cutting back domestic programs. "It would be awfully difficult for the U.S. to ask the American people to put up the money for such a thing when it would have to come from other programs," says one government official. The Reagan Administration, moreover, is now in the midst of a reevaluation of U.S. support for multilateral agencies such as the World Bank. It is widely expected that the review will result in reduced support for such institutions in favor of bilateral aid, over which the U.S. has direct political control.

The Administration also has some philosophical differences with the World Bank's growing role in energy development, especially oil and gas projects. In general, it believes that some of what the World Bank intends to do should be left to private industry.

The Bank began to lend for oil and gas projects in 1977 after considerable internal discussion and over opposition from some oil companies. Initially, it limited its role to financing production from known deposits—relatively safe investments that had a high rate of return. In 1979, it expanded its operations by lending for oil and gas exploration.

The Bank entered the field chiefly to provide capital and expertise to developing countries that wanted to develop their own resources and to try to establish firmer ties between Third World governments and multinational oil companies. Changes in the world oil market had made some oil and gas operations in developing countries less attractive to large oil companies, Bank officials believed, and they felt they could help stimulate their interest.

In particular, the oil majors are understandably more concerned with finding and exploiting petroleum deposits large enough to provide substantial exports to the industrialized countries than with developing small fields for domestic con-

sumption in Third World nations. Consequently, their operations are heavily concentrated in the industrialized countries themselves and in areas such as the Middle East where large proven reserves are already being exploited. In some cases, oil companies are also wary of making large investments in developing countries for fear that their agreements with the governments will be abrogated or their operations nationalized if there is a change of political leadership.

As for oil and gas exploration, the Bank pointed out in its survey of energy programs last year that "the potential of the vast majority of the import-dependent countries has been explored at best superficially; enough to determine that large, easily exploitable reserves are not present, but not enough to establish whether there are smaller deposits that could make an important contribution to their own energy supplies." A study by Petro Canada and Petroleos de Venezuela reported last year, for example, that of 15,258 exploratory wells drilled worldwide in 1978, only 63 were sunk in developing countries that do not produce oil.

In some cases, the Bank has stimulated oil and gas projects with little direct investment of its own. A promise to consider financing for oil and gas production, should it be necessary, was sufficient to secure an exploration agreement between Gulf Oil and the Pakistan Oil and Gas Development Corporation, for example. In other cases, the Bank's presence during negotiations has led to more stable agreements between governments and companies, according to several sources. "Having the Bank participate can lead to a more realistic assessment on both sides," says Edward Fried, a Brookings Institution energy expert who formerly worked for the Carter Administration.

The oil companies were generally opposed to the Bank's forays into oil and gas work when it got started. More recently, their opposition has been muted but they are still not wildly enthusiastic. In general, the companies argue that oil and gas projects have been limited in many countries because of a low expectation of finding deposits and because government policies restrict their access to favorable sites. If the developing countries lifted some of the controls and allowed the oil companies a freer hand, private industry would be willing to do the work without the Bank's involvement, company spokesmen argue. This argument has found a receptive ear in the Reagan Administration.

The Bank's other energy work is much less controversial. It would like to step



World Bank/Peter Muncie

Uncharted waters

The World Bank's first petroleum project involved a \$150-million loan to India for off-shore drilling.

up its lending for electricity generation from the currently planned level of \$7.6 billion over the next 5 years to \$11 billion. It has also estimated that an investment of \$1.25 billion in energy conservation, especially industrial retrofitting in middle-income countries such as Brazil, could lead to substantial energy savings. Its present budget contains no money for such work, however. As for renewable energy resources, the Bank would like to triple its planned investments, putting \$1.1 billion into firewood projects alone. The Bank's role in such ventures draws little opposition, for private industry is not much interested in funding such projects itself.

If the affiliate does not get off the ground, the Bank faces some tough choices. It has identified a vast range of programs that it believes are essential to improve the energy prospects and, consequently, the economic health of oil-importing developing countries. But without a large increase in its capital base, it cannot support them all. Some observers are consequently urging the Bank to reexamine the priorities within its current lending program.

Erik Eckholm, a former State Department official, argues, for example, that the Bank should consider an expanded fuelwood program and an energy conservation program, with or without the affiliate. "It would be a tragedy," he said, "if some of these vital programs get lost because of the politics of the affiliate."

For the moment, however, World Bank officials are hoping that the Reagan Administration will change its mind. Although the indications are that the Administration will not participate in the affiliate, it has not closed the door completely.

The statement to the Bank's executive board said that "the U.S. might be able to consider an appropriate structured Bank energy entity at some more suitable time." It added that "no inference should be drawn from this regarding the eventual U.S. position on

the proposed expansion of Bank energy lending."

If it closes the door on the affiliate, however, the Administration will be passing up an opportunity to expand the Bank's energy work with little cost in public funds.—COLIN NORMAN

Gene Therapy Caught in More Entanglements

With five review committees overseeing him, a UCLA researcher did an experiment his own way

The first attempted gene therapy experiment has become further entangled in procedural problems by the discovery that it also constitutes the first known occasion on which recombinant DNA molecules have been inserted into humans.

Compounding the problem is that neither of the two American committees which considered the experiment, nor any of the three Israeli committees which approved it, were told that recombinant DNA molecules would be used: for reasons that are not yet entirely clear, all were told the opposite.

The principal architects of the gene therapy experiment are Martin Cline and Winston Salser of the University of California, Los Angeles (UCLA). An ingenious attempt to push the new genetic techniques to the therapy stage, the experiment came to public attention in October last year. After an initial wave of press interest in the first gene therapy, the publicity turned sharply negative because of criticisms from Cline and Salser's peers that the experiment was scientifically premature (*Science*, 31 October 1980).

The criticisms seemed somewhat beside the point, however, since provided that Cline and Salser had received permission for the experiment from a human subjects protection committee, they doubtless had every right to undertake it. The news that the committees may not have been given the correct information makes this shield look somewhat less reliable.

A theme that underlies the controversy over the experiment is the difference between private and public responsibility. By their own lights and in their own way, the UCLA researchers seem to have acted with scrupulous regard for their patients' interests. But for reasons that may or may not have been entirely

their fault, they had difficulty in acquiring approvals from the various committees that now have public responsibility for overseeing research of this nature.

The Cline-Salser experiment, if successful, would offer a general method of treating such blood diseases as beta-thalassemia and sickle cell anemia, both of which are extremely painful, at present incurable, and kill the young. Their approach is to repair the genetic defect that is the cause of the disease by introducing the correct gene into the patient's system. Delivering the gene in sufficient quantities to be useful is one aspect of the problem; getting the gene expressed is another. Efficient expression of the human globin genes in animal cell test systems has not yet been achieved—which was the reason for much of the criticism that the experiment was premature. But with the delivery system, which at first seemed much the harder problem, surprisingly good progress has been made, at least in animal experiments. In the therapy, marrow cells are first extracted from the patient, and have inserted into them the globin gene and another gene that helps give them a selective advantage over untreated cells; they are then injected back into the patient, who must have mild radiation so as to clear niches for the returning marrow cells.

The UCLA team believed that the promising state of their delivery system merited taking it to humans. During the many months that might be needed to get the delivery method working in patients, they or someone else would doubtless come up with a solution to the expression problem. At which point there would at last exist a possibly effective treatment for a group of otherwise hopeless diseases. Cline and Salser devised protocols for treating both sickle cell anemia and beta-thalassemia. The sickle

cell patients were available in Los Angeles; suitable beta-thalassemics were located in Israel and Italy. They applied for permission in all three places. But getting approval was no simple matter.

At UCLA, on their home ground, Cline and Salser ran into what struck them as a classic catch-22 situation. Each of the two committees whose approval they required—the human subjects protection committee and the recombinant DNA committee—said there was no point in considering the novel experiment unless the other committee had cleared it first.

In an attempt to break the impasse, the UCLA team asked the National Institutes of Health to put the issue before the national recombinant DNA committee. But NIH director Donald Fredrickson had no comfort to offer; he too told them to get the permission of the human subjects protection committee first.

As the first attempt to apply the recombinant DNA technique to humans, the novel experiment presented possible political problems, in addition to its scientific complexities, for whoever approved it. Asked why the NIH refused to put the question to its recombinant DNA committee, a public advisory group which costs \$125,000 a year to run, executive secretary William Gartland says it was "because we didn't want a big public discussion when it might turn out to be unnecessary." The UCLA team is said to have received much the same impression of the NIH's reasons. Director Fredrickson, however, says he decided that the UCLA human subjects protection committee should rule on the experiment first "because I felt that human experimentation was a much broader issue than the recombinant DNA aspect." Because of the UCLA team's fear of being caught in a catch-22, Fredrickson told the UCLA human subjects com-