the burdens of the Presidency, but little has really been known about how decisions are made within the fastness of the White House. What the tapes show in discussions of domestic legislation and international economic problems, for example, is a President badly informed, even indifferent.

The tapes, of course, provide an incomplete record, but the transcript of conversations on 23 June 1972, which led directly to the Nixon resignation, also include chillingly casual exchanges between Nixon and aide H. R. Haldeman on matters which had nothing to do with Watergate.

In response to a Haldeman report that the British have floated the pound the transcripts show Nixon saying, "I don't care about it. Nothing we can do about it." And later, on the same subject, "Good, I think he's right. It's too complicated for me to get into."

To Haldeman's remark that Federal Reserve Board Chairman Arthur F. Burns is worried about speculation in the Italian lira, Nixon is shown replying, "Well I don't give a (expletive deleted) about the lira."

Later, in discussing a legislative issue, the identity of which is lost in an unintelligible patch, Nixon says, "There ain't a vote in it. Only George Shultz and people like that think it's great (unintelligible). There's no votes in it, Bob."

Shultz, of course, was Secretary of Treasury at the time and Nixon's chief adviser on the economy, and the remark provides an eloquent comment on the dichotomy between Nixon's inner circle and his other advisers. The attitudes expressed by the former President help to explain why Administration policies for combatting inflation, managing the economy, and dealing with serious international monetary problems have been inconsistent and ineffective.

The transcripts also help explain how the White House science advisory machinery was deemed expendable and disposed of. The concern about White House science advisory machinery shown by the scientific community has sometimes seemed a bit parochial and self-serving. But in the present situation it takes no special wisdom to see how R & D decisions will affect how the government deals with serious energy and food problems and how important these actions will be in future economic developments in this country and abroad. The Nixon tapes illustrate why good presidential advisers and good mechanisms to transmit their advice are necessary in every sphere of policy; this should not be overlooked among the lessons of Watergate for the new Administration.—JOHN WALSH

EPA Study: National Academy Set to Serve Two Masters

The National Academy of Sciences (NAS) is beginning a $5 million study for the Environmental Protection Agency (EPA) under circumstances that leave the academy entangled in an uncomfortable political thicket.

Although its contract is with the EPA, the academy will, in doing the study, also be under the scrutiny of two powerful and mutually antagonistic congressional subcommittees. One of these is the House Appropriations Subcommittee on Agriculture-Environmental and Consumer Protection, chaired by Representative Jamie L. Whitten (D–Miss.), who thinks that DDT is as wholesome as mother's milk and who complains that EPA's approval of "overly restrictive" state air pollution control plans has been a major contributor to the energy crisis. The other is the Senate Environmental Pollution Subcommittee, chaired by Senator Edmund S. Muskie (D–Maine), principal author of the statutes which the EPA is charged with carrying out.

As reported to the House floor by the Whitten subcommittee June a year ago, one of the fiscal 1974 appropriations bills included $5 million for the NAS to do a "complete and thorough review, analysis, and evaluation of the [EPA], its programs, its accomplishments, and its failures." Representative John Dingell (D–Mich.), chairman of the House Fish and Wildlife Subcommittee, raised a point of order on the grounds that this was legislative language inappropriate in an appropriations measure. His objection was sustained and, as the bill subsequently passed the House and Senate, it merely included $5 million for an NAS study "in connection with the [EPA]."

A few days before the Senate acted on the bill, John S. Coleman, executive officer of the NAS, wrote the Senate Appropriations Committee to say that it would not be proper for the academy, as a private organization, to be assigned "responsibilities of a ministerial nature for program oversight, audit or review . . ."

Later, in December 1973, Philip Handler, president of the NAS, wrote Gordon MacDonald, chairman of the academy's Commission on Natural Resources (which would have general responsibility for the study), to warn that "we should by all means avoid placing ourselves in an adversary position with EPA."

Yet, on the same day that Handler was cautioning MacDonald, Representative Whitten was informing the EPA that his subcommittee wanted to review all proposed contracts for the study. In a letter to Russell E. Train, EPA administrator, Whitten also in effect restated the legislative mandate that had been struck from the appropriations bill on the point of order. ". . . we will expect you to utilize the $5 million to review the programs, procedures, standards, and decisions of the agency," Whitten said.

One particularly appropriate subject for review, he suggested, would be the EPA regulations for the removal of sulfur oxides from power plant stack gases. "The electric utility industry . . . appears to be unanimous in their opinion that while sulfur removal technology does exist, it is not sufficiently developed to justify massive capital expenditures," Whitten observed.

The contract for the study—the largest ever undertaken by the academy—was negotiated by the EPA and the NAS in the spring and early summer of this year, and was finally signed on 28 June. In explaining the general thrust of the study, a "proposal" paper prepared by the NAS cites both the report of the Whitten subcommittee and Whitten's letter to the EPA administrator, and then iden-

tifies three major areas of investigation:

1) The acquisition and use of scientific and technical information in decision-making. "Actual EPA decisions will be studied . . . [but] this retrospective analysis will not have as its purpose the evaluation of the performance of the agency."

2) Analyses and critical reviews of substantive environmental problems, such as "environmental regulations and the energy crisis" and the benefits and hazards of pesticides.

3) Several general topics applicable to most EPA functions, such as the statistical treatment of environmental data and the development of a system of environmental quality indicators.

The staff of the Muskie subcommittee learned of the EPA-NAS study contract less than 10 days before it was signed, and immediately became alarmed. Sharpening the sense of alarm was the fact that, whereas the Whitten subcommittee and the Office of Management and Budget were consulted in the preparation of the study contract, the Muskie subcommittee was not. It was apparently only the subcommittee's last-min intervention that led the EPA to have the contract explicitly state that study plans must be mutually acceptable to the EPA and the NAS.

Officials at the NAS are acutely sensitive about the EPA study. On 4 July, the *New York Times* reported that Leon Billings, staff director of the Muskie subcommittee, had suggested that, if the reports from the 3-year study call EPA regulations into question, they could lead to legal challenges by polluters which might seriously delay the pollution-control effort. New information about pollution hazards can be cited by environmentalists in challenges aimed at strengthening pollution-control regulations, but Billings obviously did not think such information would be forthcoming from the academy studies.

Yet, according to David Jackson, a White House Fellow who has been the EPA contract officer for the study, Russell Train believes that the study can contribute substantially to improving his agency's procedures and decision-making. An early report to be aimed at improving the EPA office of research and development, which is currently without a top administrator, is awaited with particular interest.

Also, Jackson says that he has been much impressed by the caliber of the ad hoc group set up under the NAS Commission on Natural Resources to serve as the senior working committee in charge of the study. This committee is chaired by Robert M. Solow, an MIT economist.*

Although the outcome of the study should not be prejudged, one can fairly say that the path through the political underbrush in which the NAS now finds itself is narrow indeed. In trying to avoid the "adversary role" of which Handler warned, the academy may fall into a blandness that will not give the Hon. Mr. Whitten what he wants for his money.—LUTHER J. CARTER

* Other members of the committee are Daniel B. Botkin, an ecologist with the Yale School of Forestry; Lucius P. Gregg, Jr., president of the First Chicago University Finance Corporation and a specialist on manpower training and human resources; William L. Garrison, of the Institute of Transportation and Traffic Engineering, the University of California, Berkeley; Samuel Baxter, a Philadelphia consultant on sanitary and environmental engineering; Robert T. Holt, a behavioral scientist with the Center for Comparative Studies in Technological Development and Social Change, University of Minnesota; and John C. Frye, of the Illinois State Geological Survey.

Lester Brown: Tireless Sounder of the World Alert

Anyone perusing a magazine or newspaper article about the world food and population situation is likely as not to run across the name of Lester R. Brown who, it seems, is invariably resorted to as a source of ironclad expertise on the great supply/demand dilemma of all time: people versus everything required to sustain them—jobs, energy, the environment, natural resources, and, above all, food.

Who is Lester Brown, and why does he know so much? Is he making any difference in the world? Is he right?

Some call Brown a publicizer; others see him as a one-man early warning system for future global crises. Brown calls himself a synthesizer. "The world desperately needs synthesizers," he says. Brown is jack of many trades and master of some, with degrees in economics from the University of Maryland, public administration from Harvard, and considerable familiarity with various disciplines bearing on food production and world trade.

Raised on a farm in New Jersey, Brown is a country boy whose ambition and brains have lifted him into that special international orbit that experts in the concerns of the moment fly around in, held up by ready flows of money from private foundations, corporations, and governments.

Lester Brown is much in demand these days, so much so that one wonders when he has the chance to retreat and replenish himself. No doubt his regular participation in Saturday afternoon football games helps furnish the energy for his breakneck pace. Here, for example, in his schedule for the next 6 months: this month he is off to Salzburg, Austria, for a 2-week faculty appointment in American studies, during which time he will shuttle back and forth to the United Nations–sponsored World Population Conference in Bucharest, where he is scheduled to deliver two talks. In September he will be in Stockholm, addressing the Nobel conference. In October there is a meeting of the Club of Rome in Berlin; from thence he will proceed to the World Food Conference in Rome in November. Then there is the Central American nutrition conference in Guatemala in December, and finally a business executives' round table sponsored by Business International (which is headed by his old boss Orville Freeman), in Acapulco in January. And lord knows how many other things in between. "I got five speaking requests this morning," Brown announced over a dinner of broiled chicken ("I've moved down the food chain a bit") at the Cosmos Club, Washington's distinguished hangout for the scientist set.

Brown doesn't know exactly what he'll be saying at his next speech, but it will undoubtedly contain parts of the messages relayed in the four books and