cumbersome arrangement. If nothing else, according to one White House insider, it signaled the first real awareness by Ehrlichman and the President that authority over energy needed a strong focal point in the White House. To succeed in avoiding conflicts between the two lines of authority, however, the new arrangement depended on strong leadership from the three-man committee on top.

The new arrangement never had a chance to prove its worth. The players had been in their places no more than 3 months when the Watergate dam broke on 30 April, washing Ehrlichman out of the White House and leaving DiBona high and dry and ostensibly in charge of American energy policy. With an avalanche of shortages bearing down, leisurely ad hoccery gave way in a traumatized White House to a kind of wild-eyed leaping from foothold to foothold in search of solutions. "Each step they took," says one disgruntled insider, "was too little and months too late."

DiBona and his small group found themselves thrust increasingly into day-to-day command of the Administration's energy tactics, a role vaguely defined and for which they were woefully unprepared. By summertime, amid acute shortages of gasoline and talk of worse to come this winter, DiBona had become the White House point man sent out to pacify a surly Congress. He did not succeed, partly because he lacked the rank and political clout to command the attention of a President preoccupied with his own survival. Colorado Governor John Love was recruited to make the necessary connections, but he had about as much success as DiBona.

By late fall, the two lines of authority were in sharp conflict, apparently with little arbitration from the top. Gasoline rationing this winter was a point of particular contention. Love—a laconic seeker of consensus whose reputation for dithering was not entirely deserved—argued that rationing, if unpalatable, was also inevitable and that the Administration ought to get a head start on planning. Shultz is said to have resisted, hastening the demise of Love and the Energy Policy Office.

Such muddling, of course, was not invented by the Nixon White House. It might even be argued that organization charts have no intrinsic value. What has always mattered most was who had whose ear in the inner circle of counselors, where sensible policy and practical politics converge.

For an Administration with a penchant for management, however, the muddlement index would seem to have been abnormally high. If nothing else, energy policy's shifting parentage was a sure sign of its orphan status; its maturation has demonstrably been stunted.

Does William Simon's rise to czardom signal a fresh start? It could. Energy policy has now achieved maximum visibility, what with the President ceremonially chairing an emergency action group and the White House providing frequent "photo opportunities," as they are called, in which the President is seen conferring with his energy advisers. Shultz's backing gives Simon a leg up on his predecessors, and the new Federal Energy Administration (FEA) promises to bring genuine order to the more than 60 agencies involved in national energy affairs.

Congressional approval of the FEA, however, would once again leave the White House without an energy intrastructure of its own. So the question remains: When the emergency expires or winds down, will the hole in the inner sanctum wall that King Faisal succeeded in blasting open simply seal itself shut? An executive order of 4 December mentions a plan to set up a new White House energy policy office, but that is still only a promise.

In the end, the President's encounters with energy policy would seem to provide a measure of the insulation he chose to surround himself with. "There were a lot of things the President was not well informed about," says a former senior official. "Watergate was one. Energy was another."

—ROBERT GILLETTE

Agriculture: Rise to Prominence at Home and Abroad

Arab oil sheikhs, Texas cattlemen, Russian trade officials, and Kansas wheat farmers may have little in common, but 1973 was the year in which they combined to threaten the American way of life in its fundamentals. Cheap food and abundant energy were once taken for granted. Now the Cassandras are saying that oil is too precious a resource to burn in automobiles and that beef is so costly to produce that by 2000 it will be a delicacy as rare as larks' tongues. The price rises that engender these dire prophecies have been caused by bad weather, the Middle East war, and many other factors that are clearly ephemeral. But the suddenness with which the scarcities of food and energy developed has been a sharp reminder that global resources are finite and that the present phase of shortages and high prices may only be a premonitory tremor of worse upheavals to come.

Until now, national food policy in the United States has been almost solely the province of the Department of Agriculture, whose overriding concern has been to look after farmers. There is still no food policy, but a lot more people are interested in making one. The massive entry of the Russians and other foreign buyers into the American food market drove domestic prices of food up and contributed massively to the continuing rise in the cost of living. This event, of no little political consequence, but apparently unforeseen by the Department of Agriculture (USDA), led people on the Council of Economic Advisers to remark that agriculture was too important to be left to the agriculturalists. Most major policy pronouncements on agriculture this year have emanated from the Treasury or the White House, often over the open opposition of Secretary of Agriculture Earl Butz. (Butz opposed both the ceiling on meat prices and the imposition of export controls on soybeans. The fact that soybean controls were later lifted, and the temptation to slap similar controls on grains resisted, is taken in the USDA as a sign that Butz's voice still counts.)

Food has also become an important factor in foreign policy. Soybeans are the largest single American export. Agricultural exports took an amazing leap last year from $8 to $12.9 billion, making a weighty contribution to the balance of payments. Foods has become a potent political weapon, al-

USDA projections of per capita cereals consumption (kilograms per year).

	1954–1956 (average)	1969–1971 (average)	1985
Developed market economies	436	534	621
Developing market economies	159	182	184
Centrally planned economies	311	340	391
World average	270	301	313

though there is no agreement on how to use it. Butz opposes the idea of an international system of food reserves; Secretary of State Henry Kissinger has taken a much more conciliatory position by calling for a world food conference. At any rate, it is clear that the United States possesses in its food production capacity a possibly crucial chip to exchange for the raw materials possessed by the third world, should it ever come to confrontation.

Food has leaped to prominence in the nation's affairs with such rapidity that the new situation is hard to assess. Farm policy used to be geared to dealing with the problem of surpluses; overnight, the problem has changed to one of scarcity. The response has been to lift all administrative restraints on farm production and allow farmers—if they choose—to grow as much as they can. But just as the agricultural system was gearing up for flat-out production, a new constraint began to operate. American agriculture is highly dependent on energy, both directly—farming uses more petroleum than any other single industry—and because natural gas is a principal material for nitrogen fertilizer. A rise in the price of energy will raise farmers' costs considerably. Farmers have been allocated most of the energy they need next year, and the supply of fertilizers is expected to be tight but not desperate. Farmers will be shielded from the energy crisis in the immediate future, but they have been made sharply aware of their vulnerability.

Another constraint on farming has been the environmental movement. By and large, there is no fundamental conflict—environmentalists prefer to see land used for farming than converted to airports, highways, or urban sprawl. But the technology of modern agriculture requires heavy use of chemical pesticides and fertilizers and creates polluting by-products such as feedlot wastes. Is the style of American agriculture in keeping with the circumstances in which energy and the environment have ceased to be limitless resources?

The style has of course been shaped by a steady stream of scientific and technical improvements that have generated continuous and spectacular improvements in agricultural productivity. Yields of corn, for example, increased 240 percent between 1945 and 1970. But the productivity increases have been designed for the purpose of maximizing profits, which until now has meant reducing labor and substituting energy. Over the same period, the labor input per acre of corn has dropped by 60 percent, whereas the requirement for all other kinds of energy input has increased almost threefold. The versatility of American agricultural research may make it possible to design plants and animals that require less energy inputs, but even if so fundamental a switch in research strategy could be put into effect immediately, it might take years to see the results.

Food Hand-outs Curtailed

The events of the past year have indicated serious changes in store for American agriculture, but the consequences for the less developed countries are even more profound. For the last 25 years the United States has kept world grain prices at a low and stable level by the subsidy paid to its exporters. For those who could not afford to buy, American food surpluses have been made available under the PL 480 program at concessionary rates or for free. And for countries with a famine on their hands, the United States has always been the granary of last resort. That era is past. Grain prices have taken off, American reserves are at their lowest level in 20 years, and the PL 480 program has been more or less restricted to countries of strategic importance such as South Vietnam and Cambodia. USDA rationale for this policy is quite simple. The PL 480 program was intended to dispose of surplus food and the surpluses can now be sold; countries which depended on PL 480 sales had better learn to grow their own food and develop their own research programs and fertilizer industries. Will the less developed countries be able to respond to this challenge? "Some will, some won't. It depends on whether they have the administrative management, will, and ability to get it done," says Lyle P. Schertz, deputy administrator of the USDA's Economic Research Service.

Underdeveloped countries will be in particular difficulties if energy prices remain high. Although they have made notable strides in their agricultural production in recent decades, the increases have only just kept pace with the growth in population, so that food production per capita has improved hardly at all. To buy off famine, or rising expectations, governments of less developed countries are forced to import food, at serious cost to their reserves of foreign exchange and ultimately to their economic development. Within the last 8 years there have been great hopes that the agriculture of these countries could be dramatically improved by the Green Revolution—a slogan that in essence means the adaptation of American agricultural technology to developing countries. These hopes are still alive, but the events of the last few years have shown that the Green Revolution cannot be imported without its attendant problems. The new technology is expensive, meaning that rich farmers benefit more than the poor: it tends to destroy jobs rather than create them, adding to the generally chronic unemployment problems of developing countries; and it is energy intensive.

Continued application of the Green Revolution is, however, the only hope of forestalling hunger in the less developed countries. According to projections released last week by the Economic Research Service of the USDA, the per capita cereals consumption in less developed countries will continue at its present level until at least 1985 (see table). Optimists can use this conclusion to point out that there will probably not be a worldwide famine in the next decade. On the other hand, the present per capita average means that millions of people below the average go very hungry, and the prospect of no improvement in average consumption over the next 12 years is not particularly satisfactory. Moreover, the USDA projections are based on certain assumptions, not all of which may be fulfilled, such as a medium population growth rate, continued rapid growth of the world economy, and normal weather.

Ensuring that the best use is made of the world's agricultural capacity will

depend in the long run on using modern science to fashion a style of agriculture suitable for each country's needs. Equally important are the terms of trade on which agricultural commodities are exchanged. Many developed countries have set up tariff barriers to protect the income of their own farmers. As a result the share of developing countries in world agricultural trade has declined steadily since 1955. But advanced countries also suffer. The United States could export considerably more food to Europe if in the forthcoming round of GATT talks the Common Market countries can be persuaded to lower their tariffs against American agriculture. Failure to win such a reduction could leave American farmers with vast unsalable surpluses on their hands.

The high prices and alarming shortages of the last 2 years probably do not reflect any fundamental change in the world food economy. What has changed is people's attitudes. Developing countries have begun to realize the desirability of a healthy indigenous agriculture. Congress has legislated a more rational agricultural policy in the form of an act that guarantees minimum prices for crops instead of paying farmers not to grow them. Serious attention is being given in many countries (although not by the USDA) to the proposal by the Food and Agriculture Organization for a world system of grain reserves. The new sense of urgency may at least lead to arrangements that buy some extra time to keep world food production ahead of population growth.—NICHOLAS WADE

Environment: A Lesson for the People of Plenty

Environmentalists are now asking what gains and losses for the cause of environmental quality may result from the energy crisis. That there will be losses, at least in the near term, is clear enough. More encouraging, if less obvious, is the possibility that persistent energy shortages will make for desirable changes in the nation's social and economic development, including some wholesome changes in life-styles. Here, the essential point is that a crisis is perhaps necessary to teach the body politic that the conservation of energy and the attainment of environmental quality are complementary goals, both demanding that resources be used with care and restraint.

Already, the energy shortage has led to steps toward some relaxation of hard-won standards and procedures for environmental protection. The Senate and House have passed bills that would allow the Environmental Protection Agency (EPA) to suspend clean air standards temporarily in situations where a power plant must switch from low-sulphur oil to high-sulphur coal. Even before the Arab oil boycott, Congress had moved to exempt the Trans-Alaska Pipeline project from any further court challenge under the National Environmental Policy Act (NEPA).

Proposals to authorize still other exemptions from NEPA are being discussed, and there is every chance that some will find favor with Congress. Certainly Congress will be under strong pressure not to sit still for suits brought under NEPA which would delay development of shale oil or offshore oil and gas reserves. One important test of the effect of the energy crisis on environmental protection efforts will come early next year when the House Interior Committee resumes work on legislation for the regulation of strip mining (in October the Senate passed a strip-mine bill containing some provisions that were strongly opposed by the coal industry).

Yet, in terms of the public good, any temporary setback in the passage or implementation of environmental protection laws caused by the energy crisis could be easily offset if this crisis brings most Americans to see the necessity of changing their profligate ways. That profligacy has its roots deep in the national history.

In the United States during its first two centuries, the people have had both a dedication to individual freedom and the opportunity to develop the immense resources of a virgin land of continental size. Furthermore, from the Industrial Revolution, which was just beginning in Europe at the time the United States was founded, came the technology allowing the development of those resources on a scale and with an intensity never before dreamed of.

The "frontier" in the American experience was not only the advancing edge of western settlement but also the advancing edge of an industrial technology which, especially in this century, has produced consumer goods at relatively low cost and in great profusion and variety. Americans became the "people of plenty," as they have been described in a provocative, if little-known, book first published nearly 20 years ago by an historian who went beyond the thesis of Frederick Jackson Turner that the frontier experience was the critical influence in shaping the American character.* Indeed, such was the abundance of this new age that the development of modern advertising was necessary to make people want what they often did not need and to make consumption virtually an end in itself.

The United States' extraordinarily high consumption of energy, nearly 400 million BTU's per capita in 1968, clearly indicates how dependent Americans have become, even when compared to the peoples of other rich and technologically advanced countries, on cheap, plentiful energy. Only in Canada has the per capita consumption of energy even approached the level found in the United States. In none of the European countries do people consume even half as much energy as Americans.

Appliances such as home air conditioners, dishwashers, clothes dryers, and freezers, which were luxuries in the 1950's, are now used in about a third to nearly half of the homes in the United States. Some new appliances, such as frost-free refrigerators, use more than twice as much electricity as older ones. For an example of extravagant commercial use of power, one need look no farther than some of the new indoor sports arenas. The Houston Astrodome during 1971 used enough electricity for more than 8000 homes.

But it is particularly in the use of

* D. M. Potter, *People of Plenty: Economic Abundance and the American Character* (Univ. of Chicago Press, Chicago, 1954).