

The Unfinished Agenda

Gerald O. Barney, ed., *The Unfinished Agenda: The Citizen's Policy Guide to Environmental Issues*, Thomas Y. Crowell Co, New York, 1977

The Unfinished Agenda, a report of the Rockefeller Brothers Fund-sponsored Environmental Agenda Task Force, is summarized and excerpted below. The chapter on "The Energy Economy" — the key topic in the report — will be extensively excerpted, while the remaining 9 chapters will be briefly summarized with appropriate excerpts included. The report, edited by Gerald O. Barney of the Rockefeller Brothers Fund, is 191 pages and is scheduled for release in March.

Preface: "The Environmental Agenda Project was an effort to enlist the constructive thinking of the nation's most knowledgeable and professional environmental leaders ... Sixty-three of these new leaders pooled their considerable expertise ... to identify and describe what they regarded as the most critical issues ... and to recommend what explicit actions might be taken over the next several years..."

The Preface then identifies the 63 environmental leaders who participated in the project (see list below).

Introduction: The Call to Action: This section lists 70 "public policy proposals," earmarked for legislation, on topics such as population, food and agriculture, energy, natural resources, society and decision-making, etc. Many of the specific recommendations will be cited in the chapters dealing with a specific topic.

Chapter 1: "Population: How Many Is Too Many?" (Written by Donnella Meadows -Club of Rome- with contributions by Lester Brown -Worldwatch Institute). The report calls for a reduction in population — both internationally and domestically — listing 11 proposals geared to reaching this goal including:

- * Remove taxation discrimination against single people and childless couples and eliminate additional tax benefits (e.g., income tax exemptions) for those with three or more children.
- * Continuation and increased funding of family planning programs, research into fertility control methods, and training of paramedical personnel in recipient nations be provided to administer and follow-up on simple techniques of contraception, abortion, and sterilization.
- * Special emphasis be given to foreign-aid measures that have an indirect negative effect on fertility...
- * Establish a national goal of population stabilization or gradual population decrease...
- * Gradually reduce and stabilize quotas for legal immigration....

Chapter 2: "Food and Agriculture:" (Written primarily by Donnella Meadows and Lester Brown). In this chapter, the authors further the polemic against popula-

tion growth saying that "population stabilization is the only possible long-term solution" to the world food shortage. "Increasing food production ... should be considered the least desirable..." alternative. The authors also stress labor-intensive methods of agriculture both for home and abroad. Specific recommendations include:

- * Relating all forms of assistance to the necessity of bringing birth rates into line with death rates. "Birth rates shall not be maintained higher than death rates" even though this may "interfere with some freedoms."

- * A U.S.-Canada Commission on Food Policy, modeled after the efforts of "OPEC countries to manage petroleum" through "the price mechanism and production controls."

- * Reduce unnecessarily wasteful levels of food consumption in the U.S., including "food-related commodities" such as "fertilizer and energy."

- * To the extent possible, encourage the reduction of direct donations of food to poor countries.

- * Promote research and development of intermediate agricultural technologies, both for use at home and to aid agricultural development abroad.

"Examples of these intermediate technologies include digesters to produce fertilizers from household and urban organic wastes, biological pest control, windmills for pumping water, solar grain driers, small sturdy hand tractors, methane generators, and many sorts of handtools." Along with recommending the use of "more labor-intensive methods," the report recommends the return to the "smaller farm."

Chapter 3: "The Energy Economy" (Written by Amory Lovins of Friends of the Earth).

It is essential to devise and build a new type of energy economy far less dependent on dwindling supplies of fluid fuels ... Within a few decades, world extraction of oil and gas will also peak and start to decline. As it is, this country is rapidly becoming reliant on imports from a single, politically volatile region, to the detriment of both our economic and political independence. This change in fortune caught the government largely by surprise. Therefore it is imperative that the United States devise a new energy plan.

THE CURRENT DILEMMA

Project Independence and its later drafts assume rapidly growing supplies of energy, especially in the form of electricity, to be essential to a healthy economy. Increased efficiency in using energy is thought desirable. Yet the resources and initiative to be devoted to increased efficiency are slight and effective action has a low priority in government...

One aspect of the Project Independence plan which raises formidable problems is the proposed massive reliance on nuclear fission through a multi-trillion-

dollar investment. The required technical maturity, manageability, reliability, and economic viability of the technology have not yet been satisfactorily demonstrated. In fact, a searching examination of performance records and experimental results over the past few years leaves one shaken by the potential for disaster. Skepticism has grown among knowledgeable experts about the ability of unproven safety systems to prevent catastrophic accidents because of random failure or human malice. Threats and actual attacks on reactors and other nuclear facilities have occurred and are increasing. Thousands of unexpected engineering failures, some of which narrowly avoided causing serious releases of radioactive materials (as in the Browns Ferry fire of March 1976), have placed the quality of design, construction, maintenance, and adequate federal regulation in serious doubt ...

Perhaps the most alarming hazard of widespread fission technology is its creation of materials which, in the hands of some individuals, could result in violent and coercive acts. The knowledge and tools needed to convert certain plentiful nuclear materials into a crude or sophisticated bomb, or into simpler weapons of mass destruction, are readily available...

Protecting the guardians of nuclear waste from social unrest, strikes, economic pressures, and wars implies a rigid and hierarchical social structure.

An alternative — and hypothetical — source of energy in the distant future is controlled nuclear fusion, which is included in the more speculative energy scenarios as an ultimate “safe,” “clean,” and “inexhaustible” substitute for fission and fossil-fuel energy sources. It is of course difficult to evaluate, decades in advance, the costs and impacts of a technology that does not yet exist even on paper. Although fusion technology if feasible would have one overwhelming advantage over fission breeder technology — the non-involvement of plutonium — it is likely to share every one of the other crippling disadvantages of nuclear power listed above. It is likely to be extraordinarily expensive in capital, materials, energy, and human skills. It is therefore even more likely than fission technology to pre-empt the resources of society and to foreclose other energy options. Its safety is far from obvious. Plutonium apart, the problems of radioactive leakage and waste disposal may dwarf those of fission technology. Fusion reactors will utilize large quantities of radioactive tritium, notoriously difficult to contain, and much of the energy will be produced in the form of high energy neutrons, which will make the entire reactor structures radioactive. Finally, first-generation fusion reactors will involve the consumption of lithium, a material whose supply is certainly not inexhaustible and could probably not sustain a large energy demand for long. For all these reasons, controlled nuclear fusion does not appear to be a valid, promising option for future energy supplies. We recommend that fusion research continue, but at low priority ...

A Friendly Trade-Off Between Food And Energy

Below is an interview with a staff member of Friends of the Earth:

*Q: Your colleague Amory Lovins has written in *The Unfinished Agenda* that the U.S. should be powered by bio mass conversion to fuel alcohol. Would that mean mainly wood? How would that work?*

A: Wood is one method, but in Brazil they have tried manioc and other crops. They can all be used.

Q: It doesn't seem that existing forest land and marginal lands will supply enough energy. How would you deal with that?

A: You can use cropland too. In fact you would probably have to.

Q: Wouldn't that decrease the area available for food crops?

A: There would be a trade-off between food supplies and energy supplies with our program, but that it part of the sacrifice you would have to make.

THE ENERGY BLUEPRINT

This nation and the world recently passed a fork in the energy path. The present path leads further toward a centralized high-technology future, an unsustainable energy future which requires huge commitments of monetary capital and the remaining stocks of energy capital. The other path leads to a future based on dispersed-income energy sources and soft technologies with far less reliance on electricity....

Conservation and prudent use of resources mean not loss but rather preservation of the “good life.”... Humanity and humane values may be less endangered by too little energy....

It appears that the United States, like other industrial countries, already has far more electricity than it can thermodynamically justify. Reducing electricity generation would save enormous amounts of capital and fuel by decreasing the wastes associated with central power stations....

*Smaller-scale energy generation systems should be developed and promoted....

*We recommend a rapid move from dependence on depletable energy capital to renewable energy income.

This would require a diverse range of relatively simple (though sophisticated) energy technologies that convert sun, wind, organic materials — even geothermal heat — to useful forms at a scale and quality appropriate to end-use needs. Rapid recent progress may make it possible over the next twenty-five years for the United States to construct an energy economy almost wholly reliant on these proven, economically attractive “soft” energy sources....

The electric utility industry is faltering and may soon be financially moribund, in part because utility laws force the utilities to be so wasteful of both

capital and energy. And above all, nuclear power is dying. Dying not only because in economic terms it is too capital-intensive to be viable as a long-range energy option, but because the more debate surrounds it, the less viable it becomes as a political reality. Nuclear proponents are winning a few battles, but losing the war. Once these realities have been recognized, an orderly process of transition from the current obsolete plan must be initiated....

*Maintenance of a fusion research program, but only at a low level, protecting a future option but without conviction at this time that it is promising.

*A progressively increasing gasoline tax, the proceeds of which are to be used to begin reducing the effects of automobiles. This tax would have a significant impact on the poor, and thus other methods would have to be used simultaneously to attack the problems of poverty....

*In the area of nuclear power a plan is needed for the orderly phasing-out (sic) over about ten years of existing facilities and the repeal of the Price-Anderson Act, which arbitrarily limits liability for reactor accidents.

The phase-out must include a halt to exports of nuclear (sic) technology and knowledge (except for safety's sake) and of nuclear fuel, for which soft-energy systems would be substituted. The phase-out process would clearly terminate the fast-breeder program and all other steps toward a plutonium economy (such as operation of the Barnwell reprocessing plant), which is now being urged by many arms-control experts on various grounds; also termination of all nuclear construction and commitments and the derating, for increased safety margins, of any reactors whose shutdown would cause serious dislocations....

*Subsidies to nuclear (and other) energy industries must be withdrawn and antitrust and securities laws enforced lest alternative energy sources be deprived of the benefits of competition and entrepreneurial vigor.

Chapter 4: "Natural Resources: Will They Last?"

(Written by Ian Nisbet of the Massachusetts Audubon Society) The report calls for minimal use of minerals and other raw materials because their extraction and fabrication have become "highly energy-intensive." This section specifically recommends:

*The United States adopt as a long-range goal the achievement of a "Conserver Society," in which materials are used to maximum advantage with minimum resource depletion.

Chapter 5: "Water and Air Pollution" (Written primarily by Gerald Barney of the Rockefeller Brothers Fund) The report calls for a strengthening of the Federal Water Pollution Control Act and the Clean Air Act Amendments as well as a "drastic increase" in the Environmental Protection Agency's air pollution research budget. In addition, the report stresses the importance of sludge for its "utility as fertilizer."

Chapter 6: "The Hazards of Toxic Substances" (Written by Joseph Highland and Arlie Schardt, both of the Environmental Defense Fund) This section concentrates on toxic substances as the cause of cancer and as they cause learning disabilities and behavioral disorders. The report proposes that "priorities in the National Cancer Plan be shifted ... away from the search of a cure for cancer" and calls for a full implementation of the Toxic Substances Control Act.

Chapter 7: "Spaceship Earth: The Life-Support System" (Written by Donnella Meadows with assistance from Laurance Rockefeller) "The United States has entered an era of scarcity" is the main theme of this section. Overcrowding on our "little spaceship — Earth" has threatened the "fauna and flora" of our ecosystem. The report recommends that:

*Special efforts be taken to preserve endangered species....

*Congress act favorably on pending wilderness legislation.

*The provisions of the Endangered Species Act be better enforced.

*Congress act in 1977 to protect Alaskan wildlands.

*The United States must develop a worthy land ethic.

Chapter 8: "The New Biological Threat" (Written by Nicholas Wade of *Science Magazine*) Fears that scientists, using the recombinant DNA technique, will create new forms of life by genetic transfer which could result in human epidemics with the "worst possible consequence." It proposes that "certain experimental research can be banned entirely."

Chapter 9: "Society and Decision-Making" (Written by Gerald Barney with contributions from Amory Lovins, Donnella Meadows, and others.) The problems of "high inflation, unemployment and growing dependence on foreign-oil imports" could be lessened, the report says, by "improved planning techniques" and "the management of technologies.... A full and active national discussion should be launched immediately on how the nation can best develop a long-range planning capability," the report recommends. The report calls for a reorganization of federal agencies making the environment "a top national social priority on an equal level with defense, employment, health, education and commerce." In addition, "antitrust laws must be vigorously enforced" and industry must be made more accountable.

*Prices of increasingly scarce commodities should be raised with an escalating tax. For example, natural gas, both intra- and interstate, is priced unreasonably low, but rather than passing on wind-fall profits to a few individuals.

*An escalating tax on natural gas consumption is recommended. The tax should increase so that after five years the price of natural gas would correspond to the price of producing energy of equal quality from energy income sources. A similar tax should be

applied to all fossil fuels and proceeds used exclusively to encourage the development of income energy technology.

Chapter 10: "A Question of Values" (Written by Gerald Barney and Amory Lovins) "As must be clear by now, this book is about a world transition from abundance to scarcity, a transition that is already well underway," the section begins. "The transition from abundance to scarcity ... requires a profound change of values. In abundance, personal interests and individualism are the keys to survival and growth. In scarcity, the values necessary for survival are a paradox: It is in the best interest of

each and every individual to put the interests of the whole society above his own; survival and stability are possible in no other way.... One of the first items on the agenda will be a rethinking of the concept of growth."

The report poses a host of specific questions for examination: "In the population area, for example, why do we as individuals want to have children? Is it selfish not to have children or to be parents?... Do we have an obligation, responsibility, or opportunity to feed starving peoples in other nations with our food? ... Will feeding the undernourished temporarily reduce death rates and lead to inevitable disaster caused by high birth rates?"

Worldwatch Institute: Tax Oil, Gas— Pour Proceeds Into Solar Energy

The following is an interview with World Watch Energy Spokesman Dennis Hayes:

Q: The report *The Unfinished Agenda* recommends applying a tax on natural gas and oil to make them equal in price to solar energy. Do you support this and how do you think it will be implemented?

A: Yes, I certainly support it. It's the only way to force conservation. Controls and rationing just won't work. We at Worldwatch have proposed a similar tax to President Carter's through a group called the Georgia Conservancy. Cecil Phillips, a friend of Carter's, is our liaison. We called them "royalties" just like the Arabs, since taxes aren't too popular — they're to be applied at the well head.

Q: How much will that tax amount to? I've seen varying estimates of how much solar energy will cost.

A: So have I, but I think the best estimate is the equivalent of \$20 a barrel oil and \$3.50 a thousand cubic feet for gas, although it might be a bit more like \$4 or \$5. What we actually proposed to Carter was lower than that. We proposed a general energy tax of \$.50 a million btu. That's about \$.50 per thousand cubic feet of gas or \$3 a barrel of oil. We estimated that it would bring in around \$28 billion a year.

Q: But your \$20 a barrel figure would be quite a bit higher, more like \$100 billion or so.

A: Yes, but you have to move there one step at a time.

Q: Even the lower tax is a large increase in price. How do you expect to get such an unpopular measure through Congress?

A: Well, for one thing you can link it to tax reform and cut income taxes simultaneously. After all, this money will go to the government, not to oil and gas companies.

Q: What exactly should the government do with it?

A: We would hope they would invest it in solar energy, that's the best thing. Of course, they could use it to retire the National Debt, but I don't think they would, not a Democratic President.

Q: Who actually supports such a tax at the moment?

A: Well, in the Senate, Percy does, and in the House Ottinger and Fisher. The Administration is definitely favorable. Schlesinger is definitely persuadable — he's a hard-headed guy and knows we need conservation. I don't believe at all this stuff about him being pro-nuclear.

Q: Do you really think the public will go along with this?

A: After two to three years of worsening crises, of natural gas, of electrical energy crisis — that's coming — maybe another oil thing, they'll catch on. Anyway, if this isn't politically feasible, we'll go with a series of conservation taxes. If your car doesn't get 40 mpg, then there'll be a \$2,000 tax on it, same with your appliances. For industry, this will be more difficult, it will involve massive regulations, but it might work.... Anyway, people will get sick of this stuff and then be ready for a general tax. That is really the way to go.

Q: Since you favor higher energy prices, do you favor deregulation?

A: Not directly, no, because that ends up putting the money in the gas company not with the government like the energy tax. But it does open the door for further increases and opens up the debate so that it is positive.