

**PERSPECTIVES ON ENVIRONMENTAL PROTECTION:
A SURVEY OF THE EXECUTIVE VIEWPOINT**

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ABSTRACT

Have business executives changed their attitudes over the past five years about the role of the federal government in the area of environmental protection? Do executives who once viewed conservationist groups as representing public opinion now perceive them merely as pressure groups seeking their own personal aims? Should environmental protection be taken into consideration even if it means slowing the introduction of new products, foregoing increased production, and reducing profits? What incentives do executives prefer for facilitating environmental protection by business?

Some interesting answers to the above questions were disclosed in a recent national survey of top level business executives. The survey was designed to probe executive opinions about these and other issues which have captivated business headlines and a large portion of managerial attention since the creation of the Environmental Protection Agency (EPA) five years ago.

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means slowing the introduction of new products, foregoing increased production, and reducing profits? What incentives do executives prefer for facilitating environmental protection by business?

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The environmental protection movement has posed an especially critical dilemma for business organizations in recent years as the multiple pressures for profit, stable business growth in the face of simultaneous inflation and recession, and energy conservation have been felt in executive offices. The more the executive has tried to become the hero in the eyes of one group (for example, the stockholders), the more he has been ostracized as the villain by others (for example, the environmentalists).

Never before has the manager been confronted with a greater challenge: The implementation of managerial decisions has contributed its share to environmental problems, and now the environment is having its impact upon managerial decisions!

Perhaps the general executive viewpoint that emerged from the present survey regarding the environmental dilemma can best be summed up in the words of one executive who stated:

It has been discouraging during the past several years to see the sometimes unreasoning public panic over environmental deterioration and the subsequent insistence that corrective measures be taken immediately at any cost! The result was that legislators at all levels hastily enacted a myriad of control legislation, often without regard for technological abatement capability or cost.

He went on:

The discouraging part from my standpoint was that industry during this period, by accusation or implication, was usually painted as the villain of the piece while the accusers always seemed to wear the white hats!

The study reported here was motivated by the desire to survey the attitudes of high ranking executives of selected industrial concerns. It is the authors' conviction that answers to the questions posed above must be sought from those individuals who occupy critical roles as decision makers in some of the nation's leading industries. The trends reported here will provide the executive

reader with an opportunity to contrast his own views with those of a nationwide poll which represents an interesting and informative compilation of executive opinions about one of today's most pressing business issues. Hopefully, the questions and findings will provide incentive for top level managers to examine and reexamine these issues which are so critical to businesses' existence and survival in the 1970's and beyond.

The Research Method

Participants for this study were chosen at random from *Forbes'* "25th Annual Report on American Industry," (*Forbes*, January 1, 1973) and Standard and Poor's *Executive Register*. The industries surveyed included aerospace/defense, automotive, building materials, chemicals, electronics, energy/utilities, forestry products, metals, and multicompanies.

Data were collected during the Spring of 1974 employing an eight-page questionnaire encompassing 37 questions, some of which are reported in this article. Questionnaires were sent to 600 executives and 142 (24%) were returned. The data reported herein are from these 142 questionnaires. The executives surveyed were corporate chief executive officers, and top level vice presidents.

Findings of the Study

The intention here is not to present an exhaustive description of the results of the entire study; rather, the purpose is to provide some highlights of the survey which will give the reader an appreciation of the main trends in executive opinions about the issue of environmental protection and the role of government in this contemporary social issue.

To facilitate comprehension of the changes in business attitudes or opinions toward environmental protection, the role of conservationist groups, and the effectiveness of governmental incentive programs devised to induce industry to protect the environment, a number of the authors' findings are compared to those of a survey conducted for *Fortune* by Daniel Yankelovich, Inc., in 1969 [1]. Although the sample, the number of respondents, and the method of collection of data differ, the authors believe that differences between the two studies reflect changes in opinions due to the five-year period elapsed rather than to differences in the sample or to the method of collection of data. Aside from some stylistic changes in the wording of a number of the items, the same questions as those of the above-mentioned survey were asked.

ENVIRONMENTAL PROTECTION AND THE FEDERAL GOVERNMENT

The first question executives were asked pertained to the role of the federal government in environmental protection. Specifically, executives were asked the following question: In the area of environmental protection, what would you like to see the federal government do? The responses were as follows:

	<i>1974 study</i>	<i>Fortune 1969</i>
Step up regulatory activities	9.8%	57.0%
Maintain status quo	29.3	29.0
Cut back regulatory activities	56.4	8.0
Not sure	4.5	6.0
	100.0%	100.0%

As indicated by the data, executive opinion exhibits a marked change with respect to the possible courses of action that the federal government could have taken in protecting the environment. The preference for the two extreme alternatives, namely, "step up regulatory activities," and "cut back regulatory activities," has been reversed. While in 1969 fifty seven per cent (57%) of the executives were in favor of stepping up federal governmental regulatory activities, in 1974 only 9.8 per cent favored that particular alternative. Conversely, while in 1969 only 8 per cent of the executives were in favor of cutting back government regulatory activities, in 1974 a majority of 56.4 per cent favored that particular course of action. The data for the "middle-of-the-road" solution of maintaining the status quo are approximately the same for the executives in 1969 and 1974. Figures for those who were not sure remained approximately the same also.

The shift away from executive preference for governmental regulation is illustrated in the following words of a respondent: "Five or six years ago we recognized the need for greater environmental protection efforts. We realized too that the government had to play a major role in bringing it about . . . but we never quite anticipated what we got!"

CONSERVATIONIST GROUPS

The second question executives were asked concerned their opinion regarding conservationist groups. Specifically, executives

were posed the following question: Do you feel that conservationist groups represent public opinion or are simply pressure groups? The findings:

	1974	1969
Pressure groups	83.3%	47.0%
Represent general public opinion	10.9%	38.0%
Not sure	5.8%	15.0%

As in the previous question, the change in executive opinion regarding conservationist groups between 1969 and 1974 is remarkable. As the data indicate, the percentage of executives who view conservationist groups as pressure groups has greatly increased in the last five years. In addition, the percentage of those who perceive these groups as representing general public opinion has been reduced to one-third. Two out of every three executives who were "not sure" in 1969 changed their minds and in 1974 sided with those who viewed conservationist groups as pressure groups.

The battle which continues to rage between the environmentalists and the private and public business sectors is all too well-known. It began with small isolated incidents on the West Coast, escalated into a national E-Day, expanded into state and federal legislative and judicial bodies, reached furious proportions with the highly controversial Alaska pipeline project, spread to New Hampshire with the Onassis-Olympic refinery proposal, descended along the eastern coastal states, and finally made its way back to Southern California.

The environmentalists have fought for beauty and aesthetics in striving for such concerns as the elimination of non-returnable bottles and cans, clear water, clean air, and sand dunes. Their endeavors, while diverse in complexity and approach, have all had one element in common: they have been attempted by small groups with only minimal financial resources at their disposal who have had the audacity to challenge huge corporate giants capable of dispersing hundreds of thousands of dollars for court battles and for massive corporate image advertising.

One executive captured what perhaps was the feeling of a number of executives regarding the environmentalists:

Our differences have come from each failing to understand the viewpoint of the other. Environmentalists recognized the hazards of

Table 1. Managerial Response to the Question: Should Environmental Protection be Taken into Consideration if it Means Slowing the Introduction of New Products, Foregoing Increased Production, and Reducing Profits?

	<i>Yes</i>	<i>No</i>	<i>Not sure</i>
Slowing the introduction of new products	83.6% (88) ^a	8.6% (8)	7.8% (4)
Foregoing an increase in production	70.3 (84)	16.4 (9)	13.3 (7)
Reducing profits	64.6 (85)	22.3 (9)	13.1 (6)

^a Numbers in () indicate percentages of Fortune's 1969 study.

environmental degradation and made a righteous racket about it. We, on the other hand, were busy doing what our system had encouraged us to do—make an honest profit for our stockholders while providing useful products which consumers wanted and were willing to pay for. Business was naturally astounded to be accused of perpetrating an evil which until then few had considered to be evil!

It is thus easy to see how and why executive attitudes have changed. The zeal of the environmentalists in attacking business has led executives to come to view these groups in a manner similar to the way other pressure groups in society have been viewed for a number of years.

ENVIRONMENTAL PROTECTION, INNOVATION, PRODUCTION, AND PROFIT

The next question in the survey solicited responses on the judgments the executives make when consideration of environmental protection conflicts with the three basic business goals or objectives: introduction of new products (innovation), increase in production volume, and profit-making. Specifically, executives were asked the following question: Do you feel that the protection of the environment should be taken into consideration even if it means:

- a. slowing the introduction of new products,
- b. foregoing an increase in production, and
- c. reducing profits?

Table 1 presents the responses of 130 executives. Twelve respondents chose not to answer this question. It may be seen from the table that the change in executive opinion regarding the

consideration of environmental protection and its effects on innovation, production, and profit is not as dramatic as in the previous two questions (those concerning the role of the federal government and environmentalist groups). Nevertheless, the data indicate certain noteworthy trends. To begin with, the average percentage of positive responses to all three alternatives declined from 85.6 per cent in 1969 to 72.8 per cent in 1974. In 1969 executives were united in their responses with regard to environmental protection and innovation, production, and profit (all responses centered around 85%). The 1974 responses show a marked change in attitude from those of 1969. While executives still show a willingness to consider environmental protection even if it conflicts with product innovation (83.6% vs. 88.0% *Fortune* study), they now indicate a reluctance to consider environment in the case of profit reduction (64.6% vs. 85.0% for the *Fortune* study).

With respect to this question, the authors conjecture (suspect) that the executives in 1969 did not fully comprehend the significance of their assertions concerning the reduction of profits. Fewer executives in the 1974 survey were willing to make such sacrifices in profits for environmental protection reasons. Doubtless their current opinions were tempered by the harsh realities of the preceding five years.

COST OF ENVIRONMENTAL PROTECTION

One of the greatest disputes over environmental protection has been and still is the cost of pollution control equipment installation and operation. The question of pollution expenditures is complex. In addition to the problem of justifying the costs as compared to the benefits derived from them, their contribution to inflation and to the cost of living in general, one faces the problem of validity of the figures supplied by companies to various government and industry surveys [2]. While the government and other research institutions suspect that the figures given by industry are inflated (to the extent that some firms lump all research and development expenditures under the general category of pollution cost), industry itself maintains that the figures are understatements, insisting that the figures do not include losses in productive capacity and/or productivity resulting from the installation and operation of anti-pollution devices, opportunity cost, and other hidden or intangible costs.

Despite these disclaimers (difficulties in interpreting cost figures), some comparisons seem desirable. In order to be able to get an idea

Table 2. Managerial Response to the Question: What Percentage of Your Company's Annual Budget Was Spent on Pollution Control?

Percentage of budget	1974	1969
00-04%	35.3%	51.0%
05-09	26.6	29.0
10-14	18.0	3.0
15-19	13.7	3.0
Over 20	6.5	3.0 ^a

^a 11 per cent of the respondents in 1969 were not sure.

of the increase in pollution cost, executives were asked the following question: What percentage of your company's 1973 annual budget was spent on pollution control? Table 2 summarizes the responses of 139 executives.

The figures in the table speak for themselves. U.S. industry has been committing its resources in ever-increasing proportions. Thus while in 1969 80 per cent of the respondents indicated that they were spending less than 10 per cent of their annual investment expenditures for pollution controls, in 1974 that percentage declined to 61.9 per cent. Conversely, the percentage of industry devoting over 10 per cent to environmental protection climbed from 9 per cent in 1969 to 38.2 per cent in 1974.

While it is very difficult to translate these percentages into dollar amounts, the figures are indeed very substantial. Robert V. Krikorian, President, Rex Chainbelt Inc., Milwaukee, was quoted in *Industry Week* as saying that "in 1967 U.S. industry was spending only \$100 million annually on pollution control; this year (1972), the National Association of Manufacturers (NAM) estimates U.S. industry will spend \$4.9 billion for air and water pollution control systems . . . a 4,800 per cent increase in just five years!" *Fortune* estimates that in the timespan between 1970 and 1974, industry has spent \$13.0 billion on pollution controls [3].

No clear methodology exists for translating these percentages into real dollar figures. However, an example should suffice in forming some idea of the magnitude of these expenditures. *Industry Week* reported that "the steel industry is starting at a \$3.5 billion price tag for its 1972-76 cleanup requirements [4]." Union Carbide spent \$35.0 million to install pollution controls (and an annual operating expenditure of \$3.0 million) for its plant in Alloy, West Virginia, which eventually transformed what was once known

Table 3. Managerial Response to the Question: Please Rank Incentives in Terms of Their Effectiveness in Facilitating Environmental Protection (5 = Most Important; 1 = Least Important)

<i>Incentives</i>	<i>Not</i>					<i>Rank</i>
	<i>Not import.</i>	<i>too import.</i>	<i>Fairly import.</i>	<i>Quite import.</i>	<i>Extrem. import.</i>	
Tax credits for pollution control cost	5.0%	12.2%	13.7%	25.9%	43.2%	4
Government grants matching company expenditures	19.4	19.4	26.9	23.1	11.2	1
Government subsidies	24.8	22.6	24.1	16.5	12.0	2
Government sponsored research & development	7.5	25.4	25.4	21.6	20.1	3
Passing on costs to consumers	7.3	5.8	11.7	24.1	51.1	5

as "the world's smokiest factory into a 97 per cent clean plant [5]." Donald C. Cook, Chairman, American Electric Power Co. (AEP), reported in an interview with *Business Week* that his company had invested \$1.0 billion in environmental controls—one-fifth of the company's total assets—and that between 1974 and 1976 it planned to spend another \$375 million on air and water pollution control [6].

INCENTIVES FOR ENVIRONMENTAL PROTECTION

Considering the large sums of money industry has spent in combating pollution, the question of incentives becomes more than just academic. Incentives imply voluntary action on the part of the company accepting the incentive program. Since a private enterprise is a money-motivated human endeavor, we have confined ourselves to monetary incentives. Good will and good corporate citizenship are necessary but by no means sufficient conditions for the firm's survival. In this connection, Mr. Kattel, Chairman of C & S Bank, recently repeated to students in a seminar at the University of Georgia: "A Company must do well before it can do good," an adage that has become popular among business executives in recent years.

Again we asked our participants the same question *Fortune* had asked in 1969 (see Table 3): Please rank the importance of the

following incentives in terms of their effectiveness in facilitating environmental protection (5 = most important; 1 = least important). Since the present data did not vary measurably from the 1969 *Fortune* results, we have included only the current findings. The executive responses are recorded in Table 3.

As can be seen from Table 3, passing on cost to consumers was the most attractive incentive favored by over one-half of the executives, followed by tax credits (43.2%), and government-sponsored research and development (20.1%). Government subsidies and government grants matching company expenditures were rated as the least important or effective incentives in providing motivation for environmental protection by industry. This attitude of executives toward government subsidies was also found to be present in the *Fortune* study in 1969. Specifically, *Fortune* states: "Curiously, many businessmen are somewhat sensitive about accepting government money. Rather typical is the case of a New York executive who found tax credits quite acceptable, but rejected the idea of government subsidies, saying, 'No one wants to be in the relief line.' "

THE FEDERAL GOVERNMENT'S PERFORMANCE IN ENVIRONMENTAL PROTECTION

Although the National Environmental Policy Act (NEPA) was signed into law in January, 1970, its real impact on business was not felt until two years later in January, 1972—the target date set by the government for massive and rigorous industry and municipalities cleanup. While for a substantial portion of industry and municipalities this target date meant the end of the struggle for environmental cleanup (or at least the beginning of a serious, sound, feasible, and well-organized effort), for the majority it meant the beginning of long, tedious, and costly fights in which companies and cities battled to prove that they had exhibited "good faith" in complying with federal and state laws on air, water, and land pollution.

Two main arguments were and still are used for non-compliance with the law: 1) the standards set by the Environmental Protection Agency (EPA) and the State Environmental Protection Divisions (EPD's) were derived from inaccurate and insufficient data and are therefore unrealistic; and 2) target dates set by the same agencies were too optimistic. In other words, the government acted too quickly and also without adequate deliberation. Recent evidence on the catalytic converter seems to offer cogent support for this accusation.

Table 4. Managerial Response to the Question: How Would You Characterize the Federal Government's Approach to Environmental Protection in Terms of Realism and Timeliness?

	<i>Realism</i> %	<i>Timeliness</i> %
Highly Unrealistic	11.4	
Unrealistic	62.1	
Adequate	20.1	
Realistic	6.4	
Highly Realistic	0.0	
Highly Premature		8.8
Premature		39.1
Appropriate		39.1
Timely		9.4
Very Timely		3.6

In order to get an indication of the depth and magnitude of these accusations, executives were asked the following question: How would you characterize the federal government's approach to environmental protection in terms of realism and timeliness? Though there was no question similar to this in *Fortune's* 1969 study, we felt this question would be of great interest to executives and government officials alike. Table 4 summarizes the responses of 140 executives.

An overwhelming majority of the executives (73.5%) considered the federal government's approach to environmental protection unrealistic. Only 6.4 per cent of them thought of it as realistic. None of the executives rated the government's approach as highly realistic. One out of five executives regarded the government's approach as adequate.

In terms of timeliness, 47.9 per cent of all the executives regarded the government's implementation of environmental protection plans as "premature." A small percentage, 13 per cent, considered the time of initiation and execution of the government's approach as timely, while 39.1 per cent rated it as appropriate.

Implications and Conclusions

In this article we have zeroed in on executive opinions, regarding:

1. environmental protection and the role of the federal government,
2. environmentalist groups,

3. conflict between environmental protection and innovation, production, and profits,
4. cost of environmental protection,
5. incentives, and
6. the realism and timeliness of the federal government's approach to environmental protection.

Our comparisons with an earlier study commissioned by *Fortune* magazine enabled us to detect certain revealing trends. For example, there has been in the last five years a marked shift in executive attitude against the federal government's role in environmental protection. The most plausible explanation for the rationale behind industry's desire for federal governmental regulation in 1969 may have been that industry had at that time underestimated the speed and efficiency with which the U.S. government would implement a regulatory apparatus and the swiftness with which the U.S. Congress would legislate it. Indeed, less than a year from the time of the first massive student sit-ins, the U.S. Congress passed the National Environmental Policy Act (NEPA) in January, 1970, which created the Environmental Protection Agency (EPA) as the central federal agency for the coordination of state and local environmental protection activities.

Another possible explanation for the desire for governmental regulation expressed in the 1969 study was the implicit rationale that a federal environmental legal scheme would put every industry on an equal basis and that differences among state environmental laws would disappear. In addition, the knowledge that one's competitor is "in the same boat," so to speak, would eliminate much of the uncertainty regarding the possibility of pricing one's product out of the market because of the additional cost of pollution controls. Since everybody would have to raise prices to cover the additional cost, any decrease in demand would affect the entire industry across the country rather than a specific firm operating in a specific state.

From the government's point of view a federal environmental protection plan would serve to eliminate the creation of industrial "pollution havens" (that is to say, regions or states having extremely lenient pollution standards for the deliberate purpose of attracting industrial investment) and "pollution jungles" (that is, states with tough and numerous pollution control laws such as, for instance, the state of Oregon).

In attempting to explain the reasons for the change in executive attitude toward federal government regulation, we suggest two hypotheses. One is that the executives in 1969 were engaging in wishful thinking and, that by 1974, having faced the cold facts of

reality, they had changed their minds. Another plausible hypothesis is that the federal government failed to provide a workable and reasonable environmental protection framework. Our data on executive opinions suggest that the second hypothesis is correct, namely, that businessmen have been very disappointed with the first three to four years of operation of the EPA. AEP's Donald Cook, in addition to filing several lawsuits against the EPA, has "in the most hardhitting attack ever directed against a government agency" [7] personally launched a controversial \$3.1 million advertising campaign to mobilize public opinion against EPA policies.

Mr. Cook's attitude toward the EPA was heralded by some as a great heroic action. A *Business Week* reader from Michigan wrote: "In an age when the spokesmen for American big business come on like Casper Milquetoasts, it was good to read about an executive who speaks with clarity, guts, and common sense." He then went on to further express his dissatisfaction with environmental protection and the EPA's and Congress's way of handling it: "A more likely option is that the EPA and Congress will force such stringent regulations on all industry, not just utilities. In that event we will revert to the stature of an underdeveloped nation, with air clean enough to suit Ralph Nader and the EPA but short of about everything that has made America worth living in" [8].

Another reader from Colorado condemned Mr. Cook's strategy for utilizing corporate resources to fight the EPA. He wrote:

I feel that the funds spent on Mr. Cook's advertising campaign could have been more efficiently allocated to one or more of the following programs: . . . energy conservation advertising . . . R & D of "front-end" process . . . etc. Cook, thousands of other corporate executives, and, in fact, millions of U.S. citizens, must realize that clean environment, consistent with reasonable economic growth policies, is a nonrenewable resource. Once exploited for shortrun profit and wasteful "prosperity" this resource can never be completely restored for future generations. Indeed, without reasonable environmental controls, our own generation will experience the costs and hardships of severe environmental degradation. Lake Erie water, Los Angeles air, and the Appalachian countryside are some of the most notable examples [9].

Mr. Cook, the 142 anonymous executives who freely gave us their opinions, and the two *Business Week* readers have expressed the feelings of the millions of U.S. and world citizens who are currently struggling with the government's role in achieving a balance between environmental quality and the sufficiency of economic goods and services provided by the agents of economic growth: the free enterprise.

One general conclusion emerges from an open-minded, objective investigation of the issue: It is not that executives are hostile when they outspokenly express their opinions whether confidentially or publicly; it is not that government officials and our legislative and judicial representatives are incompetent. Rather, the clash represents a clue to the mystery of the exceedingly complex and novel twentieth century problem of man's desires and nature's limits. If the clues are correct, then the solution does not lie in finding the culprit but rather the solution rests with developing a new set of priorities with respect to what should be the "Golden Rule" for the rest of this century. Should it be the traditional "more is better" or the unconventional "enough is best?"

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