

**The Press and Global Environmental Change:
An International Comparison of Elite Newspaper
Reporting on the Acid Rain Issue from 1972 to 1992**

Edited By

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**THE PRESS AND GLOBAL ENVIRONMENTAL CHANGE:
AN INTERNATIONAL COMPARISON OF ELITE NEWSPAPER
REPORTING ON THE ACID RAIN ISSUE FROM 1972 TO 1992**

**Edited By
William C. Clark and Nancy M. Dickson**

**CENTER FOR SCIENCE AND INTERNATIONAL AFFAIRS
AND
JOAN SHORENSTEIN BARONE CENTER ON THE PRESS, POLITICS AND PUBLIC POLICY**

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Despite this assistance, some errors may remain. The responsibility for these is solely ours.

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**THE PRESS AND GLOBAL ENVIRONMENTAL CHANGE:
AN INTERNATIONAL COMPARISON OF ELITE NEWSPAPER REPORTING
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Foreword

Almost everyone has an opinion on how the press covers public policy issues. Some people believe that reporters and their editors have a preconceived agenda and focus on those facts and stories that support that agenda, while others believe the press is more benign and has a limited effect in shaping public perceptions. Still others embrace the notion that press coverage reflects the biases and viewpoints of the government or the "establishment."

Environmental issues seem to trigger this debate over the accuracy and fairness of the media. Does the press deliberately exaggerate environmental threats? Are they beholden to one political interest or another? Where do reporters get their information? Why do they decide to pay attention to one aspect of a "story" rather than pursue a different tact? Finally, what factors tend to change a reporter's slant on an environmental issue?

Surprisingly, there has been a paucity of analysis about how the press covers environmental issues. Anecdotal descriptions are the rule, not the exception. Prompted by the vacuum in the scholarly literature and fueled by a generous grant from the IBM Environmental Research Program, scholars at Harvard's John F. Kennedy School decided to explore how the press in six different countries covered the issue of acid rain over a twenty-year period, 1972-1992. Under the direction of Prof. William Clark, teams of researchers were formed in six countries to analyze how one or two elite newspapers in each country selected for attention a subset of events, ideas, and perspectives related to the problem of acid rain and how it diffused these perspectives through society at large. The information obtained from each country was then compared to identify the similarities and differences between the countries.

This paper describes the results of this project. Professor Clark and Nancy Dickson plan to publish a book expanding on these themes which should be available in early 1997.

We at the Kennedy School deeply appreciate the confidence and support provided to us by IBM and particularly by Art Hedge (now retired), and Joe Sarsanski without whom this project would not have been possible.

Henry Lee

**THE PRESS AND GLOBAL ENVIRONMENTAL CHANGE:
AN INTERNATIONAL COMPARISON OF ELITE NEWSPAPER REPORTING
ON THE ACID RAIN ISSUE FROM 1972 TO 1992**

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**HUNGARY:
ELITE NEWSPAPER REPORTING ON THE ACID RAIN ISSUE
FROM 1972 TO 1992**

Ferenc L. Tóth and Éva Hizsnyik¹

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Editor's Introduction

Dramatic changes occurred in the social, economic and political system in Hungary during the study period, as the country moved from single party system to democracy, a mixed economy and a multiparty system. These developments were reflected in the response of the public, government and other key actors to environmental issues and, to some extent, to the issue of acid rain. Press coverage of the issue mirrored these developments, as the role of the press shifted from being a handmaiden of politics to an independent voice. This chapter examines these historical changes and societal response within the context of their impact on environmental policy. From this perspective, it reports on the results of analyzing the press coverage of acid rain during this turbulent period in Hungarian history.

1 OVERVIEW

The objective of this paper is to analyze and evaluate the role of the media in the overall evolution of national response to the problem of acid deposition, commonly called the acid rain problem. In order to facilitate proper understanding and interpretation of the analysis that follows, it is important to explain some key feature of the socioeconomic and political context for our media - acid rain issue right at the outset. Acid rain was given scant mention in the press before 1980. Hence the bulk of our analysis is related to the 1980s. The dominant trend of the decade was the economic agony of communism in Hungary. Economic growth was slow or negative; living standards were declining; foreign debt problems were mounting while hard currency reserves had sometimes reached critically low levels. Partly as a compensation for this increasing economic hardship and partly in response to changes in the Soviet Union (Gorbachev's glasnost and perestroika), a slow process of political liberalization was observable (ranging from increasing room for private and semi-private business activities to reducing restrictions to foreign travel to tolerating non-conform voices in the still tightly controlled press). Albeit the process of liberalization was slow and the risk of reversal tangible.

A significant but certainly not a pivotal component of this process was the emerging concern of people about the quality of their environment, pollution, and the various risks associated with environmental degradation. Understandably, this emerging concern focused on local environmental issues and apparent pollution incidents. Longer term, transboundary issues have never been very high on the political or public agendas. Consequently, the role and performance of the press in the general history of acid rain management should be evaluated in relative terms and against this background. This is exactly what we did and how the facts and our analyses should be interpreted.

The issue of acid rain appeared on the agenda of the key actors variously, but was never a central issue for any of these groups. For meteorologists and natural scientists in Hungary, environmental acidification was a well known problem even in the 1960s.² By the late 1970s, forest damage had been observed in several regions of the country, prompting a heated debate between ecologists and foresters about the causes of forest dieback and the contribution of acid rain. Initial scientific uncertainty about the linkage between acid rain and forest dieback was essentially resolved in the late 1980s as most scientists concluded that acid rain was a cause, albeit not the dominant one, of forest dieback. The basis for the consensus was the findings of impact assessments conducted in the mid 1980s indicating that Hungary's water resources and soils were generally well buffered and that local incidents of soil acidification were mainly the result of inappropriate fertilizing practices. As for the corrosive buildings, monuments and other material resources in Hungary, decades of non-maintenance and repair of these resources have made it practically impossible to ascribe blame to acid rain. Studies involving atmospheric transport modeling carried out in the early 1980s showed that less than

half of the acid deposition in Hungary was attributable to domestic emission sources, suggesting that local abatement measures would have only limited effectiveness on resolving the acid rain problem.

Government engagement with the issue and with the problem of the long-range transport of air pollution can be traced to activities initiated in the late 1970s as Hungary prepared for the 1979 Geneva Convention on the Long-Range Transport of Air Pollutants which established international targets for sulfur dioxide emissions. Throughout the study period, government response to the acid rain issue would be strongly influenced by the international dimension of the issue. For example, findings from the above mentioned atmospheric transport studies helped direct policy attention away from domestic impact mitigation and toward the identification of feasible emission reduction options that would allow Hungary to comply with international environmental commitments to reduce sulfur dioxide emissions. Efforts to limit the mainly transport-related nitrogen oxide emissions were motivated by urban air pollution concerns and the emerging international agreements.

For the public, the pollutants associated with acid rain were not distinguishable from the many other contaminants causing air pollution. Nor did most of the general public experience harmful effects that they could attribute directly to acid rain. This may partially explain the relatively low level of public interest in acid rain throughout the study period. Another possible reason is that under the communist system that dominated Hungary from the start of the study period to the free elections of 1990, the prevailing ideology implied that the communist party and the government knew what was best for them and would act to protect their economic and social well being (the environment being an element of this well-being). Given the temporally poor state of the economy and the technology base, it was assumed that people would tolerate incidents of industrial pollution as a tradeoff for employment and other social benefits derived from industrial activities. As the economy improved, the State would have additional funds to invest in environmental protection. The argument went further to imply that since the big capitalist countries were largely responsible for most transnational environmental problems they should also be made responsible for helping small, economically weak and less polluting countries like Hungary to tackle such problems through international cooperation. Individual responsibility for environmental problems was a lesson people would learn only gradually. Even during the post-communist period, public interest in acid rain and in most environmental issues was much below the level of that in ever worsening economic problems.

Accordingly, there was no national policy debate on acid rain or on the need to reduce pollutant emissions. Throughout the post-1956 government regime that ruled Hungary until the 1990 elections, practically all of the key actors associated with the issue were guided in their actions at the national level by a judicious blending of political ideology and pragmatism. This approach, together with the social principle of a classless society united for the common good, generally kept major conflicts from arising openly among actors during the period up to 1990. From this perspective, government officials were faced with a dilemma: at one pole, the view held was that the public should be made aware of the environmental degradation and taught how they could individually help to resolve the problem; at the other pole, officials worried that too much public knowledge of environmental risks would lead to excessive anxiety and demands for government responses which were nearly impossible under the (then) economic situation.

Press coverage of acid rain mirrored these developments. During the 1970s, coverage was scant, increasing in the early 1980s to a modest peak around 1984 and declining somewhat irregularly thereafter. By the late 1980s and early 1990s, acid rain was still on the press agenda but discussed mainly within the framework of other environmental problems. During the study period, the role of the press changed dramatically, from that of a handmaiden of politics to an independent voice. Prior to gaining its independence around 1990, the press carefully balanced political correctness and

objective reporting but always within permitted boundaries. In the midst of these constraints, press coverage of acid rain played a minor role in the history of environmental reporting in Hungary.

To appreciate the analytic findings on how the press covered the acid rain and the policy implications, it is important to understand the context in which the press and other key actors operated over the study period.

2 CONTEXT

2.1 The Political System

During the study period the political system can be divided into two very distinct phases:

- Phase 1, 1972 to 1987, represents the second half of the so-called "Kádár regime" named after the leader of the Hungarian style communism that ruled the country following the 1956 revolution against the totalitarian communist regime of the 1950s; and
- Phase 2, 1988 to 1992, represents the transition to democracy, a multiparty system and a market economy.

2.1.1 Phase 1: Hungarian Communism Under the Kádár Regime

During most of the post-1972 era of the Kádár regime, Hungary's economy was slowly declining, social diversity was limited and hard-core leftists and liberal-reformist jockeyed for power within the single party, the Hungarian Socialist Workers Party (HSWP, hereafter referred to as the Communist Party) that rigidly controlled all walks of government and societal life.³

Economic and social responses during the Kádár regime typified the unique blending of political ideology and pragmatism. Officially, a conservative Marxist-Leninist approach was adopted; in practice, Hungarian policy was attuned to the continuously shifting power of the liberal and ultraconservative party factions as well as to other variables such as East-West relations, developments in the (then) Soviet Union, and domestic economic realities. Economically, Hungary pursued a reformed type of central planning with carefully interwoven elements of a so-called "socialist market" economy. The overwhelming majority of the production capacity was State-owned. Although individual companies could manage their operations as though they were economically competitive, de facto they had little room for manoeuvring given the endless bureaucratic regulations that covered virtually all activities, from foreign trade to employment, from prices to technologies. Ultimately, the State would absorb any profit or compensate the firm for its losses.

Compared to the turbulent changes that would take place after 1988, this period was one of relative stability in Hungary.

2.1.2 Phase 2: Social, Political and Economic Transition

The year 1988 was a milestone, during which the Communist Party held a significant conference (May 20-22).⁴ Shortly thereafter the political power of the Communist Party eroded and eventually disintegrated. A multiparty political system emerged in which the views of the conservatives, liberals, nationalists and the socialists (mainly the earlier pro-reform wing of the HSWP) could be

heard. Whereas in 1987 the Communist Party had almost one million members, only a small percentage of this group joined the newly constructed Hungarian Socialist Party (MSZP). In sharp contrast to more than 40 years of single-party system ruling, some 70 parties nominated candidates for the first free elections held in Hungary in 1990. Efforts began to broadly privatize the economy and to move toward a Western European style of a market economy. From 1988 to the end of the study period the Hungarian economy was in recession, with only a small group able to achieve economic well-being.

2.2 The Environment, Acid Rain and the Policy Agenda

Generally speaking, the government showed little policy interest in acid rain and generally in environmental issues during most the study period. In 1972, for example, it passed the Clean Air Decree and in 1973 it issued regulations on the siting of industrial plants that covered air polluting technologies as well as emissions and fuel standards including the maximum sulphur content in fuels. The next major event was the 1976 Act on the Protection of the Human Environment. The Act laid down attractive principles for environmental protection, but did not bring about major changes in practice. As pollution charges were nominal and did not influence either company profits or manager performance evaluation, emissions continued and environmental quality remained poor, especially in large industrial regions. Around 1985 officials in the government environmental bodies proposed that the government regularly report on the level of air pollution and inform people when pollution reached dangerous levels by smog alarm systems and the like. There was considerable opposition to this proposal from top government and party officials, and environmental officials were informed that such notifications would only make people anxious about a problem that the party and the government could not resolve at that time.⁵ A new Government Decree on Protection of Clean Air and an associated OKTH (National Office for Environmental and Nature Protection) Regulation were passed in 1986, again with little impact on emissions and environmental quality.

The roots of this seemingly disinterested official policy response can be traced to Hungary's unique blending of political ideology and pragmatism and the dilemma the government faced with respect to acting on environmental issues. For example, the State-owned electrical power industry readily admitted producing excessive sulfur dioxide emissions but added that because of tight government regulations on inputs and prices they lacked funds for emission reduction. Symbolically the State charged companies that were unable to comply with existing emission standards. Nevertheless, it was the State that allocated funds for investments in emission reduction measures.

As for public information, government environmental officials acknowledged that the country's poor economic status made it impossible to divert huge funds for emission reduction and that people should not have unrealistic expectations about solutions. During the 1970s and up to the mid 1980s they sought to help the public understand the problem and to learn to be less wasteful in using energy and other resources.

Administratively, during the Kádár regime environmental protection was addressed only at the departmental level within various government ministries. It was not until late in 1987 that the government established a ministry-level environmental agency (before that, OKTH was a "state bureau" headed by a state secretary, not a minister). As a result, environmental regulations were fragmented and weak throughout the Kádár-regime.

After 1988, policy administration was relatively chaotic. The Ministry of the Environment was reorganized several times, headed by several ministers. Environmental policy was first coupled with water resource management (1988-90) and later with regional development policy (1990-94).

There were notable exceptions to the generally low level of public and government interest in environmental issues. Significantly, both cases occurred in the mid to late 1980s as the Kádár regime deteriorated and social tolerance of environmental pollution was declining. The first case involved a set of NIMBY (not-in-my-backyard) incidents that gave birth to local initiatives to halt certain local investments that were perceived to pose environmental risks to the community. These involved a broad range of facilities ranging from a nuclear waste storage site (Ófalu) to a hazardous waste combustion facility (Dorog) and to a battery-lead reprocessing plant (Gyöngyös).

The second case involved the slow but steady emergence of a formal environmental movement against the construction of two hydropower stations and associated dams on the Danube River (the GNV -- Gabčíkovo-Nagymarosi vízlépcső -- project). As early as 1957, Hungary and (the then) Czechoslovakia agreed to jointly construct these dams, although neither country acted for several years. In 1977 they signed a new contract, but shortly thereafter Hungary suspended construction because of lack of funds and simultaneously tried to persuade Czechoslovakia to postpone the construction. Hungarian environmental impact assessments underscored the associated environmental risks. Nevertheless, in 1983 the two countries again signed an agreement specifying the deadline for project completion. The year 1984 marked the emergence of the Danube Circle, which was the first environmental non-governmental organization (NGO) in the country's history.⁶ The Danube Circle initiated a series of aggressive protests against the Danube project. By 1988, opposition to the project had been put on the agenda of a large number of independent social and political organizations. With a help from WWF, a coordinating organization, the Nagymaros Committee was established.⁷ In May 1988 the group organized a demonstration (some 3000 people) in Budapest against the Danube project. The Danube Circle attracted many followers who were dissatisfied with the mounting economic and social problems and viewed the Danube project as a symbol of the undemocratic Kádár regime. Another, significantly larger demonstration (about 40,000 people) against the project took place in September 1988 (which was the largest public protest the city had witnessed since the Hungarian uprising in 1956) as people became more outspoken in their desire for democracy and a multiparty system in Hungary.

2.3 The Hungarian Press

2.3.1 The Press as the Handmaiden of Politics

Given the centralized information management and single-party system of the Kádár regime, the officially sanctioned media left no room for an independent press or even for independent reporting. For example, the Department of Agitation and Propaganda, a powerful unit of the Hungarian Communist Party, was headed by one of the secretaries of the Party's political committee. Among its duties the department would issue weekly guidelines for the press and for public information activities. Similarly, the government's information office held weekly briefings for leaders of the ministries' press departments on what issues should be addressed in press releases and interviews that week.

With few exceptions, the Hungarian print media consisted of daily newspapers and periodicals owned by the State, the Communist Party and other party-controlled organizations. State-owned companies published these publications. For example, Hírlapkiadó Vállalat (Newspaper Publishing Company) in Budapest published all of the national newspapers and several of the large circulation weekly political and popular magazines.

The two major national newspapers printed during the Kádár regime were the *Népszabadság* ("People's Freedom"), owned by the Central Committee of the Communist Party; and the *Magyar*

Nemzet ("Hungarian Nation"), owned by the National Patriotic Front (Hazafias Népfrent - HNF). Comparatively speaking, *Magyar Nemzet* was considered to be more politically "independent" especially during the 1980s. The *Népszava* (People's Word), which in the pre-Kádár regime was the original Communist Party organ, was now the daily newspaper of the Hungarian Trade Unions and like the Unions served the Communist Party and the government. The *Magyar Hírlap* (Hungarian Newspaper), established in 1970, was the official government paper.

Regional papers were published by the county committees of the Communist Party. They were important fora for reporting on local economic and social affairs, general interest topics and public issues. Their combined circulation, however, was below that of the national papers. (See Table 1)

Practically all of the national papers covered the same events and from the same ideological perspective. A slight trend toward more liberal coverage can be observed after 1980, as a few newspapers introduced a style of "constructive criticism." Still, even this reporting was within the perceived limits of government tolerance.

2.3.2 The Press in Transition

A press act passed in 1989 brought about major changes in the Hungarian media. Initially, many people saw flaws in the new law but, by mid year, opinions were more positive as the legislation brought about a new, simpler registration scheme. All told, 591 new publications (newspapers, weeklies and periodicals) were registered that year: for example, there were 64 new nationally registered papers, 164 regional ones and 12 in Budapest alone. While many of the publications did not survive for very long, others have remained viable.

The situation for the well-established national papers was anything but peaceful after 1988, as newspapers were among the first sectors to be privatized. Political scandals and open controversy were common as privatization progressed. The emerging independent press often collided with some members of the 1990 government coalition who were supporting their "own" national newspapers. Editorial staff of existing national and regional newspapers used all available legal means to gain independence from the political system and from national publishing companies. This trend was accelerated by the financial assistance from international publishing consortia such as the Maxwell, Murdock, and Springer groups. During the negotiations, editors insisted that owners legally agree to not interfere in the editorial policy of the paper. A difficult negotiating point was the transfer of newspaper ownership from the state to private means and the appropriate prices for such transfers. Eventually, state ownership of the press and the mandate that the press serve the interests of the government were eliminated and, by the end of 1990, most national and local newspapers were foreign owned.

2.3.3 Reader Profile

Studies by the Research Center for Media Studies provide insight into sociological aspects of the Hungarian press scene from 1972 to 1984. During the 1970s, newspaper readership expanded significantly because of the improving education level of society, increased leisure time, urbanization, and relatively higher living standards. The trend was reversed around 1980 as newspapers became more expensive, economic hardships mounted and people used their leisure time for second (or third) jobs. For example, during the mid 1970s about 76 percent of the adult population read newspapers frequently and in 1979 the figure was some 83 percent; by 1983 it had dropped to 81 percent and declined thereafter.⁸ On average about two-thirds of the adult population were regular newspaper readers. These trends and proportions characterized the rest of our investigation period.

Népszabadság was by far the most widely read newspaper: one third of the adults read the paper frequently and one quarter regularly. *Népszava* ranked second, with some 13 and 10 percent representing frequent and regular readers respectively. For *Magyar Nemzet*, the data are nearly 6 percent (frequent readers) and less than 4 percent (regular readers). *Magyar Hírlap*'s readership was stable (about 2 and 1.4 percent respectively). For local newspapers, the average for frequent readers was between 38 and 48 percent and for regular readers between 32 and 41 percent. Many households outside Budapest subscribed to both a national and a local newspaper.

In terms of the readership profile, on average more men (86 per cent of the adult male population) read newspapers than women (78 per cent of the adult female population). Higher fractions of cohorts below 40 are newspaper readers (around 90 per cent) than those of the older generations (84 per cent for the cohort of 41 to 50 years of age going down to 67 per cent for those over 61 years). The higher the education level, the higher the percentage of newspaper readers; 61 per cent of people without completed elementary education (less than 8 years) read newspapers, while more than 96 per cent with higher education were readers. Correspondingly, readership is correlated with the social status: over 97 per cent of academics and business managers read newspapers frequently while only around 75 per cent of unskilled industrial and agricultural workers do it. Newspaper readerships in Budapest and other cities are almost the same (around 89 per cent) and significantly lower in the villages (around 73 per cent).

2.3.4 The Selected Newspaper: *Népszabadság*

The national newspaper *Népszabadság* was selected for study for several reasons. During the Kádár regime, it was the official paper of the Communist Party and known for providing politically correct information for the general public. The paper consistently reflected the government position on a broad range of issues, from foreign policy to the exemplary behavior of communist party members. *Népszabadság* was widely considered the best source of information on economic, social, cultural and sporting life. The paper's importance was not only reflected in its subtitle ("Central Newspaper of the Communist Party") but also the ex-officio Central Committee membership of its editor-in-chief.

Given the numerous functions that *Népszabadság* had to fulfill, it was both a quality and a popular general interest newspaper. One edition might contain quality articles by academics on scientific or technology issues as well as pedagogical articles or propaganda on the politically correct (Marxist-Leninist) position on international and domestic political affairs. As a party newspaper, much space was allocated to official visits of party delegations from other communist countries, to uninformative articles about meetings of national and local party committees and the like.

During the transition of Hungary's media (see Section 2.1.2), the *Népszabadság* was one of the first newspapers to be privatized. Normally, one would have expected the demise of a newspaper that originated in the post-1956 Kádár regime and that had faithfully served the Communist Party for over three decades. Yet, the *Népszabadság* not only survived but also maintained its dominance of the media scene. By the end of 1992, the paper had an average circulation of 300,000 and a readership estimated at more than three times that figure. The paper's slogan accurately reflected this popularity: "Each day one million people are interested in what we write; we are Hungary's most popular newspaper." (See Table 1)

3 CONTENT ANALYSIS OF PRESS COVERAGE OF ACID RAIN

3.1 Methodology

The archives of the *Népszabadság* were used for article selection. All told, eighty-five articles were identified using a keyword search that included articles related directly and indirectly to acid rain. Additionally, interviews were conducted with eight reporters, some with *Népszabadság*, including those working during the Kádár regime as well as thus currently employed, five senior government officials and five representatives of other actor groups, mainly scientists. These interviews conducted during 1992-1994, were informal and open ended.

As no computerized archive was available for *Népszabadság* for the investigation period, manual search was conducted by student assistants. Their first task was to prepare a total count of environmental articles (Figure 1). The second task was to examine all environmental newspaper articles whether they cover the issue of acid deposition or acid rain. The search also included keywords related to possible causes (SO₂, NO_x emissions), covering the spatial characteristics of the problem (long-range transport, transboundary air pollution), and also possible impacts (forest dieback, lake acidification). We also examined articles reporting on specific economic sectors (energy, transport, heavy industries) in order to capture acid rain reporting in that context. Annual totals of all environmental articles found in *Népszabadság* for the period 1972-1992 are presented in Figure 1, while the number of articles dealing with acid rain is presented in Figure 2. All acid rain articles are included in the total environmental count as well.

Environmental issues in *Népszabadság* were covered by several reporters between 1972 and 1992. For none of them was, however, environment the primary assignment. Similarly to other papers, environmental articles were written or commissioned by editors of the domestic politics, the science and technology sections. Reporters for our interviews were selected for their good knowledge of environmental reporting in Hungary, rather than because of their close association with *Népszabadság*. Interviews were open ended, but the starting point and the overall structure of the interviews were set by the commonly agreed interview protocol for this project. We usually asked for permission to tape the interviews. In most cases, permission was granted. We could not tape telephone interviews for technical reasons. We promised all interviewees not to reveal their identity.

Given the relatively low number of articles in any single year, we decided to pool our data across time, i.e., we present and analyze aggregated distributions of all articles published between 1980 and 1992. (The five articles from the period 1972-79 are mere precursors and contain little relevant information for the analyses conducted upon the rest of the data.) This was possible because neither characteristic trends over time nor significant breaks due to democratization and privatization of the press were detectable in our data. In our view, the pooled data provide the appropriate level of resolution for the analyses relevant to the central theme of this paper.

3.2 Environmental Reporting

To better understand how the press dealt with the issue of acid rain, the analysis examined the issue through the lens of overall environmental reporting in the *Népszabadság* over the study period. Here too, one observes the unique blending of ideology and pragmatism. During the 1970s and 1980s reporters viewed local incidents of environmental pollution as tolerable "exceptions" which the State would deal with once it had achieved the higher priority goal of social and economic well being and, realistically, when State funds were available. Generally speaking, the environmental reporting centered on local incidents (e.g., river pollution, spills); urban air quality (especially in Budapest); and less frequently on environmentally related events (e.g., Earth Day).

Press coverage of environmental issues in the 1970s was relatively low, averaging 20 articles a year, but with one notable exception in 1976 when the number of articles skyrocketed to over 120 articles. This was largely triggered by a single event: the government prepared and Parliament passed the "Act on the Protection of the Human Environment" that year. This was a good opportunity to report and write about heavily polluted regions and about the efforts of national and local party and government organizations to "protect the environment." Following an equally dramatic decline to 20 articles in 1978, the overall trend was upwards, with only a few minor fluctuations. Compared to the early period, by 1991-1992 coverage had increased some tenfold (see Figure 1). In addition to the volume increase, there is salience in the increasingly critical nature of the environmental reporting during the late 1980s and even the occasional mention of specific culprits. Although (in principle) people with good party connections could prevent publication of such articles, the project interviews with reporters suggest that neither the conflicts nor the stakes were considered high enough to warrant such intervention, at least for articles on acid rain.

Furthermore, environmental reporting in the *Népszabadság* was constrained by the relatively small size of the paper; on weekdays the total number of pages averaged 11 throughout most of the study period. Given the paper's multiple functions, very little space was available for environmental articles and even less for discussion of transboundary environmental issues such as acid rain, ozone depletion and climate warming. The project interviews with reporters indicated that it was common practice for reporters to have to fight for publication of their environmental articles; space limitation, rather than politics, being the reason that on average about two-thirds of the environmental articles submitted were printed.

3.3 Acid Rain Coverage: Issues in Perspective

3.3.1 Timing

Only five articles on acid rain were printed in the 1970s. While acid rain related discussions at the 1972 United Nations Conference on the Human Environment in Stockholm drew much media attention in most western countries, in Hungary the press covered the event mainly from the standpoint of political and diplomatic criticism.⁹ The acid rain related articles appearing in this decade discussed the 1972 Hungarian Clean Air Decree and the 1973 regulations on emissions of air pollutants (see Section 2.2); they referred specifically to sulfur and nitrogen oxides as air pollutants. An article in 1979 reported on the launching of an air pollution monitoring station at Kecskemét as part of an international environmental effort coordinated by the United Nations Environmental Programme; it referred to the Geneva Convention on the Long Range Transport of Air Pollutants in the context of its initiation by the (then) Soviet Union but made no mention of the chemical compounds involved in the long-range transport or the acidification impacts. In another article in 1979, the Director of the Nuclear Energy Research Institute in Debrecen reported on a comparative study of the environmental risks associated with emissions from coal-based power plants and from nuclear power plants. Sulfur dioxide and carbon dioxide emissions were identified as environmental pollutants, but the article did not specifically refer to the acid rain problem. This was one of the few instances when an interest group used these emissions to support a position in the energy debate.

The rubric "acid rain" ("savas eső" in Hungarian) first appeared in *Népszabadság* in 1981 in an article on the emission sources, their transport, deposition, impacts and options for reducing emissions and transboundary fluxes, as well as on related research and monitoring requirements. The article also highlighted Hungary's international activities in the field of environmental protection. During the early 1980s, coverage climbed steadily, peaking in 1983/1984 and declining somewhat irregularly thereafter. The reasons for the decline may be partial because most people were unaware of or

unaffected directly by the impacts of acid rain, which were relatively minor compared, say, to the extensive forest dieback in neighboring countries. The most important reason was, however, the high media interest generated by the public protests against the Danube GNV project during the late 1980s (see Section 2.2).

3.3.2 Framing

Throughout the study period, the press viewed the acid rain issue largely through the environmental lens: 55 percent of all articles are predominantly environmental stories (see Figure 3). This is understandable given the slowly increasing public interest in environmental issues. Because the *Népszabadság* was both a quality and general interest paper, most articles were self-contained as authors assumed readers had little or no knowledge of the problem and needed explanation about the causes, impacts and other factors associated with acid rain. The second largest group of articles reported on the international negotiations process and the Hungarian commitments resulting from those agreements. These articles constitute almost 30 percent of the total and belong to "Politics" category.

Emissions from industrial uses of fossil fuels were the most frequently mentioned cause of acid rain. These "general industrial" emissions are mainly responsible for our high counts (over 58 percent) in the "other causes" category (see Figure 4). To be politically correct, most authors avoided singling out power plants as the emission source, including such emissions under the rubric "industrial emissions." Generally, reporters also avoided ranking the relative contribution of problem sources. This strategy was probably a response to the strong political influence of the country's coal industry, the privileged social and political status of coal miners, and the energy sector's overall importance in policy matters. Yet electricity generation as well as automotive transport are named explicitly as major cause in about one fifth of the articles.

Forest dieback is the most serious impact of acid rain (almost 40 percent) mentioned in the articles appearing after 1980 (see Figure 5); very few articles explicitly refuted any link between acid rain and forest dieback. It was primarily reports about forest dieback in Western Europe, Poland, GDR, and Czechoslovakia that generated much of this media interest, rather than the decade long debate between foresters and ecologists in Hungary. In contrast to the severe damage to coniferous forests in Germany, Austria, and the (then) Czechoslovakia, in Hungary hardwood forests were noticeably affected, with sessile oak populations being the most affected. Moreover, damages in Hungary were relatively less severe than those observed in Germany and Czechoslovakia. Only a small number of articles focused on the impacts of acidification on lakes and aquatic systems (less than 10 percent), and mainly with respect to such problems in other countries. As research in the 1980s indicated, Hungary's water resources and most soils were well buffered against acid deposition.¹⁰ This would also partially account for the infrequent reference to soil acidification and the acidification of agricultural land. Then too, Hungarian soil scientists mainly attributed soil acidification to agricultural mismanagement, particularly improper fertilization practices. Only about 20 percent of the articles spoke of direct health effects (e.g., respiratory ailments) of acid rain or of air pollution (see Figure 5). This may partially explain why public concern about acid rain was low and why people's pressure on the government to opt for pollution abatement during the late 1980s focused on local air pollution as atmospheric and other environmental issues were generating protests against the government.¹¹ In a few instances articles refer to secondary impacts notably the economic losses to the forestry sector and the corrosion damage to material resources.

An enhanced picture of the framing question can be gained through analysis of the coverage of technology and policy options during the study period. About half of the articles did not mention

reduction strategies at all. Only articles specifically mentioning management options are included in Figure 6. The general practice of using the rubric "industrial emissions" to include power plant emissions and thus avoiding confrontation with the powerful energy lobby was also evident in the reporting on technology and policy responses to acid rain. Technological options to reduce emissions dominate the picture (over 50 percent), although technological innovations to reduce emissions from power plants or transport activities were reported mainly from the perspective of research activities or the work of a certain scientist.

A salient finding is that, of the hundreds of articles on the Danube GNV project debate that took place since the late 1980s (see Section 2.2), not one of these referred to the use of this renewable energy as a means for alleviating sulfur dioxide emissions and acid rain. One explanation may be that most of these articles addressed the Danube project from the political perspective, and particularly its effect on Hungary's relations with neighboring Czechoslovakia and Austria.

Only a small percentage (about 7 percent) of the articles discussed possible technology fixes for mitigating the impacts of acid rain, emphasizing the use of liming techniques and other fertilizing practices mainly in other countries and viewing these efforts as temporary solutions to a problem that ultimately required emission source reductions. Given the tendency to avoid blaming actors and to expect the State to resolve the problem in due course, the press showed little interest in discussing regulatory solutions. Given the significance of the international frame, press interest in regulations was primarily in terms of international agreements signed after 1979 (see Figure 6). About 15 percent of the articles focused on behavioral changes that could help resolve the acid rain problem, mainly implying some form of emission charges. Significantly, by the late 1980s behavioral changes practically disappeared from the press agenda as deteriorating economic conditions and dramatic socio-political changes combined to reduce public concern for how they could alter their behavior to help solve the acid rain issue.

3.3.3 Slant

Overall findings suggest a balance between "neutral" and "pro-action" slant in the reporting on the issue of action versus non-action. Throughout the 1980s, one can observe a modest pro-active slant in almost 50 percent of the articles (see Figure 7) which is reflected in two main poles. The first group comprised those who readily acknowledged the existence of the problem and the need to address it, but believed that the then economic situation precluded investment in emission control measures. The second group wrote straightforward news stories about recent development, most often technological innovation, that would help reduce emissions of air pollutants.

As for bias in the reporting it is important to bear in mind the underlying philosophy of communism that (in principle) would disavow social bias and conflict: namely, that in a classless society productive assets are collectively owned and used for the common good. Minor disagreements could arise among those with a particular role in the social system but they would be resolved for the common good.

3.3.4 Sources

The picture of source citation is relatively balanced.¹² Given the dominance of the State in the economic, scientific, and other institutional systems of Hungary throughout the study period, this is somewhat surprising. The executive branch of government was the most frequently cited source (37 percent), primarily because it coordinated the country's participation in the various international agreements aimed at controlling air pollution emissions. Moreover, the government was the central

authority for regulation and controls, for managing the problem and for implementing specific abatement measures. Representatives of the academia accounted for more than 21 percent of the articles as primary source, while industry was dominating source for only 7 percent of the articles.

Given Hungary's centrally planned system that controlled the industrial interests of both the emitter and the impacted groups as well as regulatory bodies, there is also salience in the balance observed among the cited sources within this executive branch. Seemingly, the department of the environment (the OKTH) as well as the subsequent Ministry of the Environment kept the public informed about the acid rain issue when the government considered the information politically "newsworthy." Articles citing government environmental agencies were also balanced: the problem was acknowledged along with the caveat that the country's financial difficulties and that high abatement targets were unrealistic. Similarly, emitter industry actors, such as the Ministry of Industry and the Hungarian Electricity Corporation, seemingly did not exploit the press to campaign for their position.

The smaller number of citations about scientists and other academics is less than what would be expected given the high level of international recognition accorded to Hungarian scientists working in fields related to the problem of acid rain. This may be because several inexpensive, large-circulation popular-science weeklies were published in Hungary, especially prior to 1990. Given *Népszabadság's* limited space, representatives of the academia science tended to go elsewhere to publish their science-based stories of the acid rain and other environmental problems. Still, the analysis of sources according to role or profession showed that scientists played a minor, albeit important role.

Coverage was also balanced for the forestry debate between ecologists and foresters. Several articles mentioned acid rain as the major cause of forest dieback throughout the 1980s. Interestingly, the press reported often on forest damages in other countries, mainly Czechoslovakia. In 1985, a major article (covering some two-thirds of the Science and Technology section of *Népszabadság*) described the research by Academician Jakucs of the University of Debrecen that identified acid rain as the primary cause of forest dieback in Hungary. The article mentioned liming experiments conducted in Hungary that met with limited success, concluding that the ultimate solution to the problem would lie in reducing emissions. A few months later Bela Keresztesi, then director general of ERTI (Forestry Research Institute), was given equal space in the same section of *Népszabadság* to explain his views about the social importance and health status of the forests in Hungary and elsewhere. Responding to the earlier article on Jakucs' work, Keresztesi maintained that the dieback of oak forests in Hungary was due to a complex set of causes in which acid rain was only one component. During this period scientific consensus was being reached on the "multiple stress theory" and Keresztesi became a frequent source of comment on forestry issues and on the relationship between acid rain (or more broadly, air pollution) and forest damage.

3.3.5 Geographic focus

As for the general scope of the articles analyzed, the picture is diverse (see Figure 9), but dominated by non-domestic articles (almost 50 percent). In fact, many articles addressed both national (foreign or domestic) and international aspects of the issue. Often it was a matter of judgement as to the primary scope. The relatively high number of articles in the "non-domestic" group can be attributed to, firstly, the fact that the *Népszabadság* had correspondents located in all Eastern European socialist country who monitored issues on the public agenda in these countries. Thus, when the issues of forest dieback and acid rain entered the debate in the (then) GDR and Czechoslovakia, *Népszabadság* correspondents covered the issues. Secondly, given the Hungarian blend of political ideology and pragmatism with respect to environmental protection, journalists may have considered it prudent to report that other countries faced even more serious problems than Hungary. Yet about one third of all articles were dominated by the domestic focus.

4 CONCLUSIONS

4.1 The Role of Acid Rain in Environmental Reporting

The content analysis of press coverage of acid rain, together with the project interviews with senior government officials and newspaper reporters, helped us understand the role played by the acid rain issue in the history of environmental reporting in Hungary. Acid rain was the first transboundary environmental problem that the press helped to make the public aware of the negative impacts of the hitherto proudly proclaimed benefits of the scientific-technical progress. Press coverage was particularly useful in helping people recognize what scientists were finding out about the finite nature of the earth's atmosphere and the risks atmospheric pollution posed to the well being of humans. The acid rain issue provided government environmental officials with the opportunity to educate people about how they could take small, but individual actions to resolve a large-scale problem. In sum, the acid rain issue united for the first time Hungarian scientists, environmental officials, and newspaper reporters in efforts to educate the public about transboundary atmospheric environmental risk.

Nevertheless the issue of acid rain has never been very high on the social and political agenda. This implies that there were no high stakes to fight for either on the media side (e.g., no major immediate danger to alert the society about) or on the government and industry side (e.g., no need to protect vested interests from vehement public criticism amplified by an aggressive media).

By 1989-90 democratization and freedom of the press brought about changes in environmental reporting. A more critical tone was noticeable and true environmental NGOs appeared as sources. However, two important phenomena made these changes largely irrelevant for acid rain reporting. First, the issue by and large dropped from the public agenda by then (the 1991 peak in the number of acid rain articles -- see Figure 2 -- was due to reports on acid rain resulting from the burning oil wells during the Gulf War). Second, between 1989 and 1992 reports on public discussions and political debates about the GNV project crowded out most other environmental issues from the media.

4.2 Balancing Political Correctness and Objectivity During the Kádár Regime

These accomplishments are especially salient in light of the fact that throughout the Kádár regime, the press prudently balanced political correctness and objectivity. Among the pre-1990 government officials interviewed for the project, the consensus is that acid rain was never sufficiently important to warrant central guidelines from the Communist Party. From project interviews with reporters, it appears that there were no major political constraints on the reporting of the acid rain problem. Official policy did not prevent the recognition that atmospheric pollution and acid rain were important environmental problems.

Yet despite explicit constraints, reporters were aware that top government and party officials were concerned that too much information would generate anxiety among the public and demands for government remedies that could not be undertaken because of lack of finances. Scientific results were released to the public from time to time. From project interviews it appears that only a few of the (then) politicians thought that the publicity given to acid rain was out of proportion, considering the many uncertainties in emissions patterns, transport processes and impact mechanisms. Both the government and party relied on public tolerance of environmental problems as tradeoffs for the economic and social benefits of industry and the belief that in due time the government would act in their interest to address the problem. The appropriate context for action was conceived to be international agreements and cooperation. Most officials and reporters accepted the official position that big and rich capitalist countries are the major sources of the problem, therefore they should carry

the major burden in solving it. In retrospect, most of the environmental officials and reporters interviewed agreed that the Kádár regime did not follow the best strategy, given the already high level of atmospheric pollution at that time. In this situation, even small contributors to the problem like Hungary should think about their own, albeit small, contribution to alleviating the problem.

Generally, the press avoided blaming specific actors for the acid rain problem and stirring up controversy. There was little opposition noted to the articles on acid rain, with the exception of a few articles that identified the energy producers as emitters or referred to the "polluters must pay" principle or the need for emission reduction investments. For balance, the press provided opportunities for counter explanations. Also there was practically no explicit bias or distortion of the facts in favor, say of polluters versus victims, or industry versus public; this would be a violation of the principles underlying the socialists' system. In the few cases when a pro-environment report happened to generate some turbulence, the editors also provided the opportunity for the other camp to express its views. Overall, press articles about the acid rain problem did not generate any significant protest on the part of the key actors.

4.3 Press Resilience and the Transition To Democracy

The resilience of the Hungarian press to adapt to change is illustrated by the case of the newspaper *Népszabadság*: once the official paper of the Kádár regime, it was one of the first to be privatized and still kept its position as Hungary's leading national paper. In terms of the press coverage, the 1990 elections resulted in more access to information for both reporters and the public and accordingly a broader understanding of environmental risks and the financial constraints Hungary faces in addressing these problems. Most of those interviewed believe that the press plays an important role in keeping people informed about the need for long term investments to resolve environmental risks even at times when resources are becoming increasingly scarce and some social groups face severe poverty problems.

4.4 Committed Individuals Made a Difference

Reporters did make a difference in the amount of space and frequency devoted to acid rain in their papers. Two, contrasting views have emerged from the project interviews with government officials and the press people. The government media officials maintain that their ministry provided information regularly about impacts of acid rain and on the broader issues of atmospheric pollution impacts on soils, vegetation and human health. Yet some reporters stated that mostly they had to track down issues and conduct their line of investigation in order to obtain sufficient information for their articles.

In terms of the reporting on these problems, public information officials at various ministries appreciated that many reporters often went beyond what the officials perceived as their own constraints at the ministry. The reporters also acknowledged that they often had to argue convincingly with their editors first to accept their environmental report and thereafter not to shorten them in the interest of educating the public; limited space, rather than politics was the driving force for this editorial constraint.

Accordingly, it was possible to report about impacts of acid rain even in Hungary (not just globally), provided one avoided concrete statements about the emitters and type of abatement strategies required. While a ministry official was not allowed to openly discuss the acid rain problem, a reporter working for a newspaper had more freedom provided he/she kept within limits.

4.5 Reporting and the Saliency of the International Dimension

As the analysis revealed, the international dimension of the acid rain problem was a major frame of the press coverage during the Kádár regime. In terms of political sensitivity, acid rain in Hungary was a "permitted" issue. The press was allowed to speak and write about the issue in a "politically correct manner," unlike other east European socialist countries such as the GDR where acid rain issue was an anathema, at least according to the experience reported by the Hungarian journalists and ministry officials. The reason may be partly because of the relatively softer form of dictatorship that the Kádár regime represented and partly because the impacts of acid rain were significantly less severe in Hungary than in other Eastern European countries such as the GDR, Czechoslovakia and Poland. Moreover, in Hungary acid rain was a permitted issue because transboundary problems were acceptable for press presentation. The fact that neighboring countries were faced with relatively more severe problems than Hungary may have also played a role in the Hungarian government's permissiveness of press coverage of acid rain. Through reports on severe problems abroad, the government was able to shift attention away from the need for domestic responses and toward the international actions which it believed were justified in tackling these problems.

Comparing the Hungarian history of acid rain reporting to those in other communist countries in the region, none of the ministerial officials interviewed for the project recalled any particular bias in presenting the acid rain problem in the Hungarian press. There was a slight tendency to tone down reports about the causes and effects in the East European countries, but the overall presentation was perceived to be realistic and objective.

4.6 Implications for Future Environmental Risk Communication Studies

Recalling our opening remarks on economic hardship and slow political liberalization that dominated the social and political agenda throughout the 1980s, we would like to remind of the relativistic nature of our analysis: environmental issues received slowly increasing albeit limited amount of attention and acid rain was a notable but never a dominant issue among them. Measured against this background, the Hungarian press as evaluated through the *Népszabadság*, performed well. It did convey useful information for the public on the issue. Framing and tone of presentation reflected the then current constraints of journalism in general, and environmental reporting in particular. Respectably, the balanced and objective tone was predominant even after political leashes disappeared around 1989-1990. Nonetheless, acid rain largely disappeared from the social agenda by then, therefore the political significance of harsh environmentalism using acid rain as its ammunition would have been much less anyway.

The press coverage of acid rain was not typical for environmental reporting in the Hungarian press, especially in the pre-1988 period. There were clearly forbidden topics, like the risks associated with nuclear energy before the 1986 Chernobyl accident, or the environmental risks of the GNV project before 1988. For such topics, the overall picture of environmental coverage is certainly less favorable than what has been revealed about acid rain. Restrictions to write about, let alone criticize the management of these sensitive issues were strict, especially in areas where perceived national interests or strong political commitments were at stake. Therefore, the present study is only the first step in a longer-term process to evaluate the evolution of the role Hungarian newspapers played in environmental risk communication and raising public awareness about environmental issues in this country.

Table 1: Newspaper circulation in Hungary (thousand copies)

	<i>Népszabadság</i>	All national	Share of NSZ in all national	All regional
1971	745	1634	45.6%	789
1972	740	1664	44.5%	839
1973	745	1667	44.7%	883
1974	809	1750	46.2%	953
1975	762	1670	45.6%	993
1976	759	1686	45.0%	1026
1977	758	1749	43.3%	1067
1978	763	1794	42.5%	1148
1979	714	1651	43.2%	1157
1980	713	1675	42.6%	1181
1981	726	1683	43.1%	1210
1982	712	1607	44.3%	n.a.
1983	701	1590	44.1%	n.a.
1984	709	1605	44.2%	n.a.
1985	693	1560	44.4%	n.a.
1986	696	1571	44.3%	n.a.
1987	694	1546	44.9%	n.a.
1988	666	1725	38.6%	1519
1989	448	1353	33.1%	1155
1990	353	1422	24.8%	1220
1991	324	1212	26.7%	1158
1992	291	1074	27.1%	1071

Figure 1. Number of environmental articles in *Népszabadság* in a given year, 1972-1992. The newspaper was searched manually on all environmental problems.

FIGURE 1
NEWSPAPER ATTENTION -- ENVIRONMENT -- HUNGARY

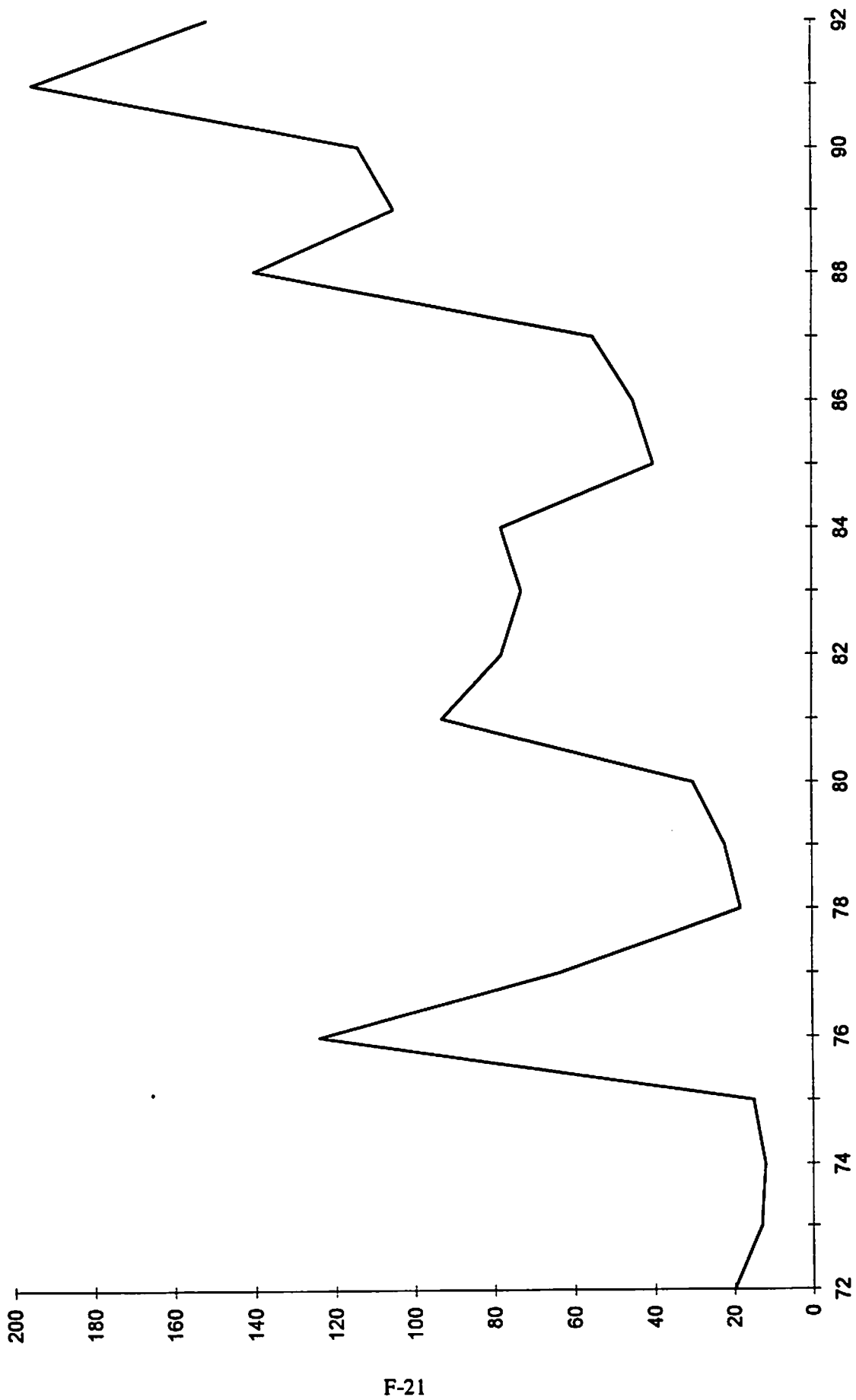


Figure 2. Frequency of articles on "acid rain" in *Népszabadság* scaled as a proportion of the number of articles in the year of maximum citations (1984=12 articles), 1972-1992. The newspaper was searched manually on articles related to "acid rain".

FIGURE 2
NEWSPAPER ATTENTION -- "ACID RAIN" -- HUNGARY

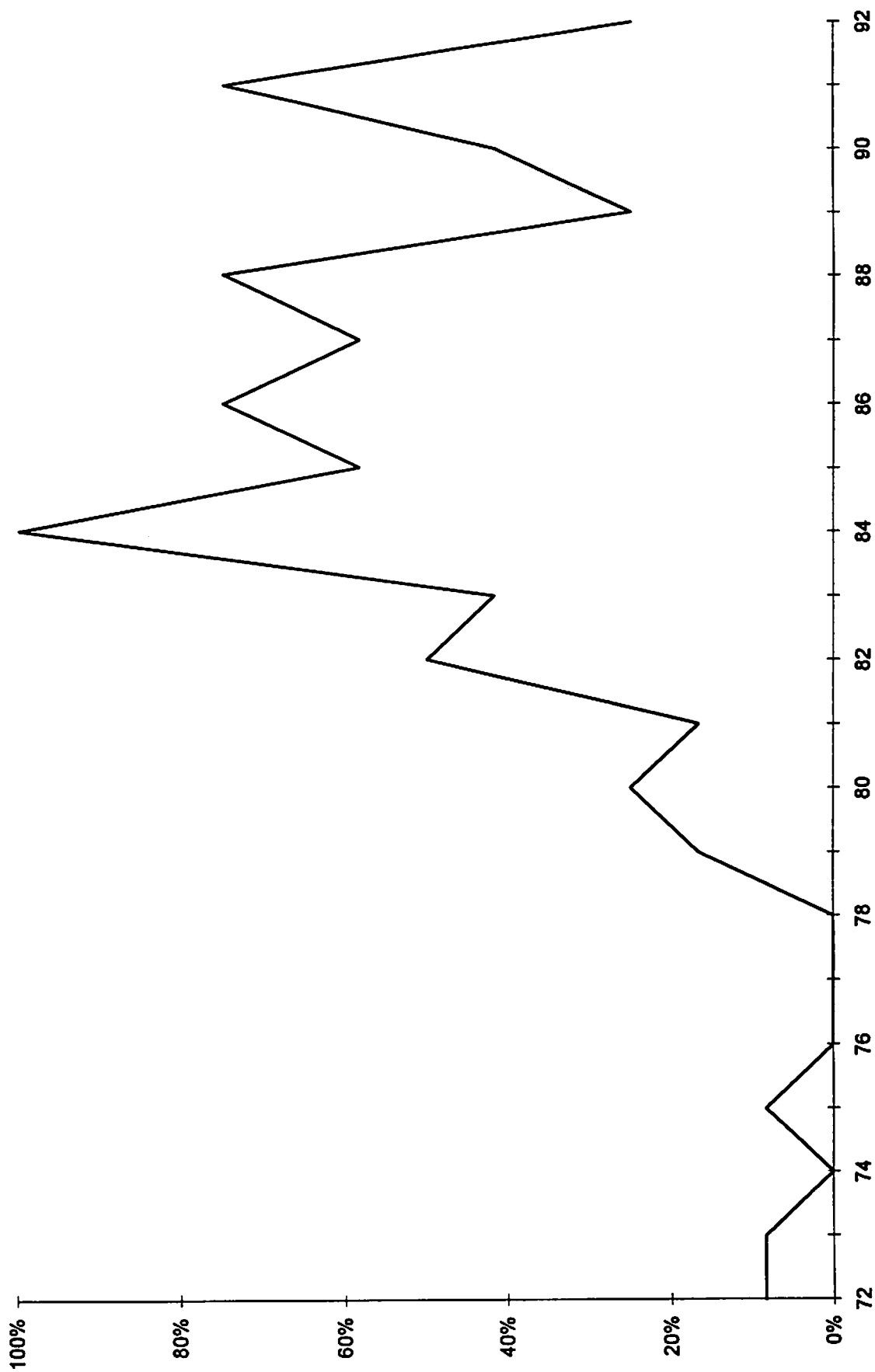


Figure 3. Percentage of articles in a given year by story type, 1980-1992. Each article was assigned to only one of the following categories: "science" includes scientific aspects of acid rain; "politics" includes regulations, parliamentary debates, etc; "health" includes the health effects caused by acid pollutants; and "environmental" acid rain as an environmental problem.

FIGURE 3
STORY TYPE --"ACID RAIN"-- HUNGARY
1980-1992

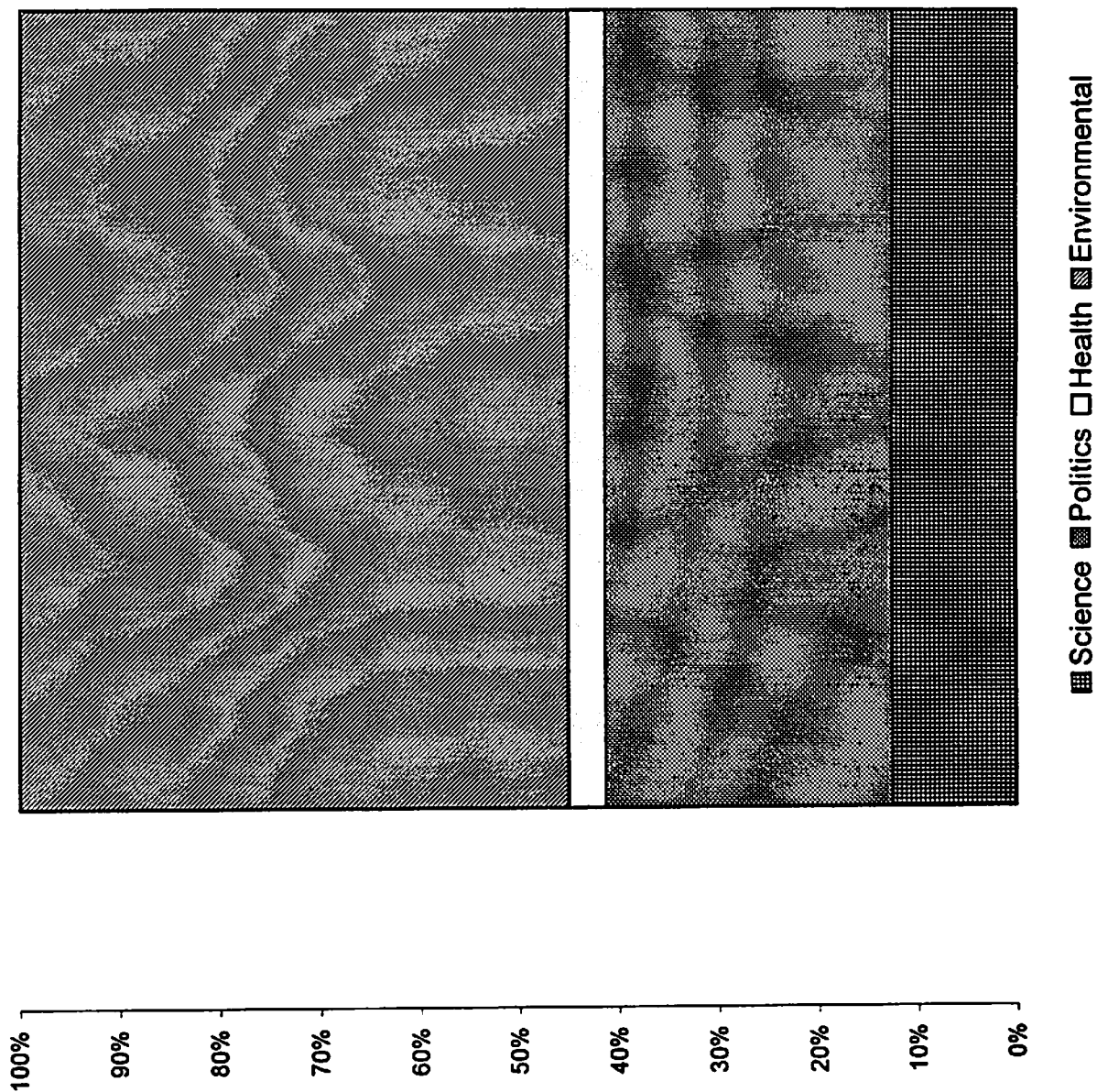


Figure 4. Percentage of all causes of "acid rain" mentioned in *Népszabadság* articles in a given year belonging to each category, 1980-1992. Each article may have had more than one cause coded.
Note: Most frequently mentioned cause is "pollutant emissions from industry" that falls into category "other." Power plants are implicitly assumed to belong to this category, but often not named as such.

FIGURE 4
CAUSES --"ACID RAIN"-- HUNGARY
1980-1992

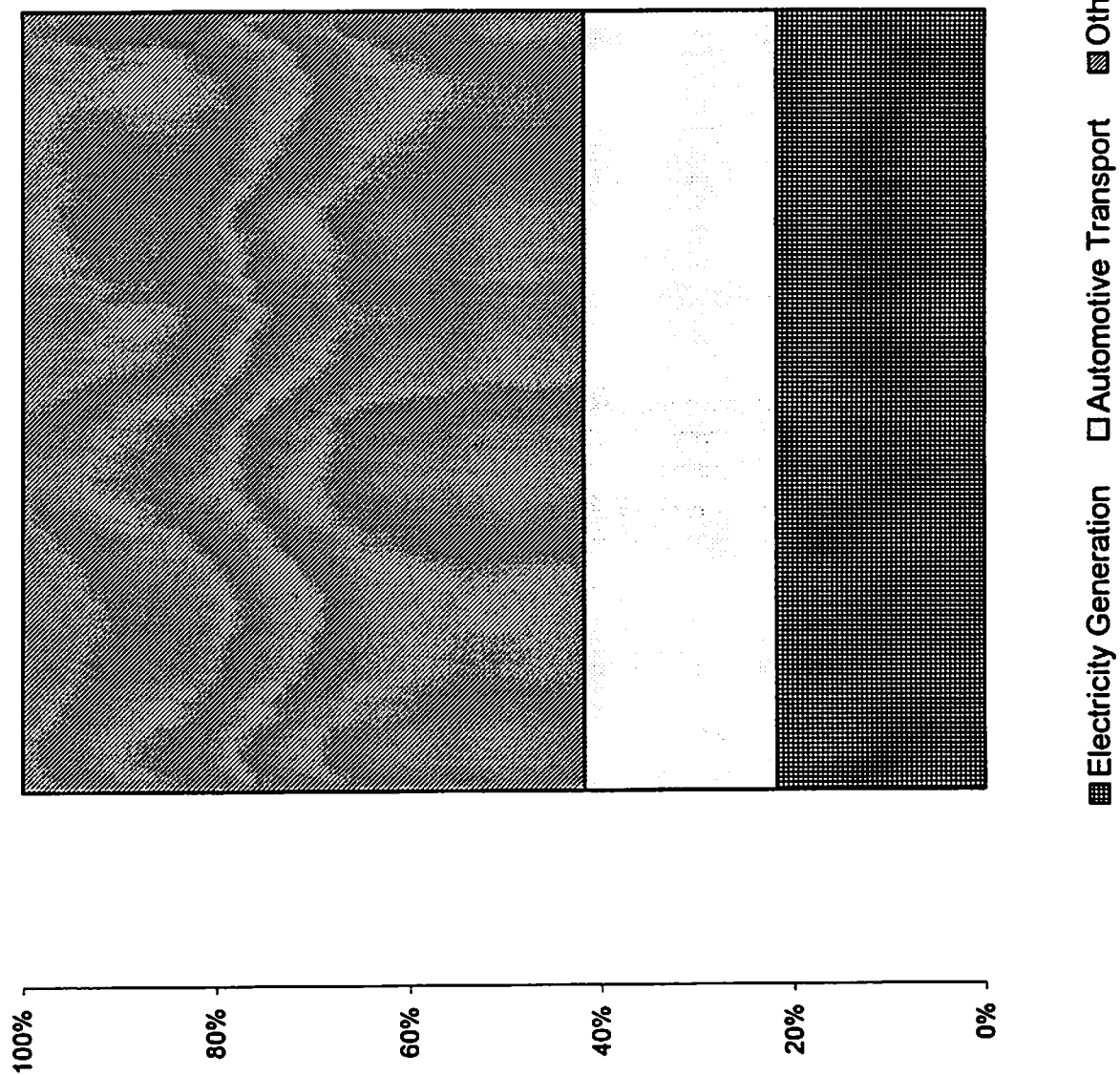


Figure 5. Percentage of all primary impacts of "acid rain" mentioned in *Népszabadság* articles in a given year belonging to each category, 1980-1992. Each article may have had more than one primary impact coded. Generic secondary effects, e.g., economic damage, are not included unless they are posed in terms of one of the listed primary impacts, e.g., the economic impacts on forests is generally coded under forest impacts.

FIGURE 5
PRIMARY IMPACTS -- "ACID RAIN" -- HUNGARY
1980-1992

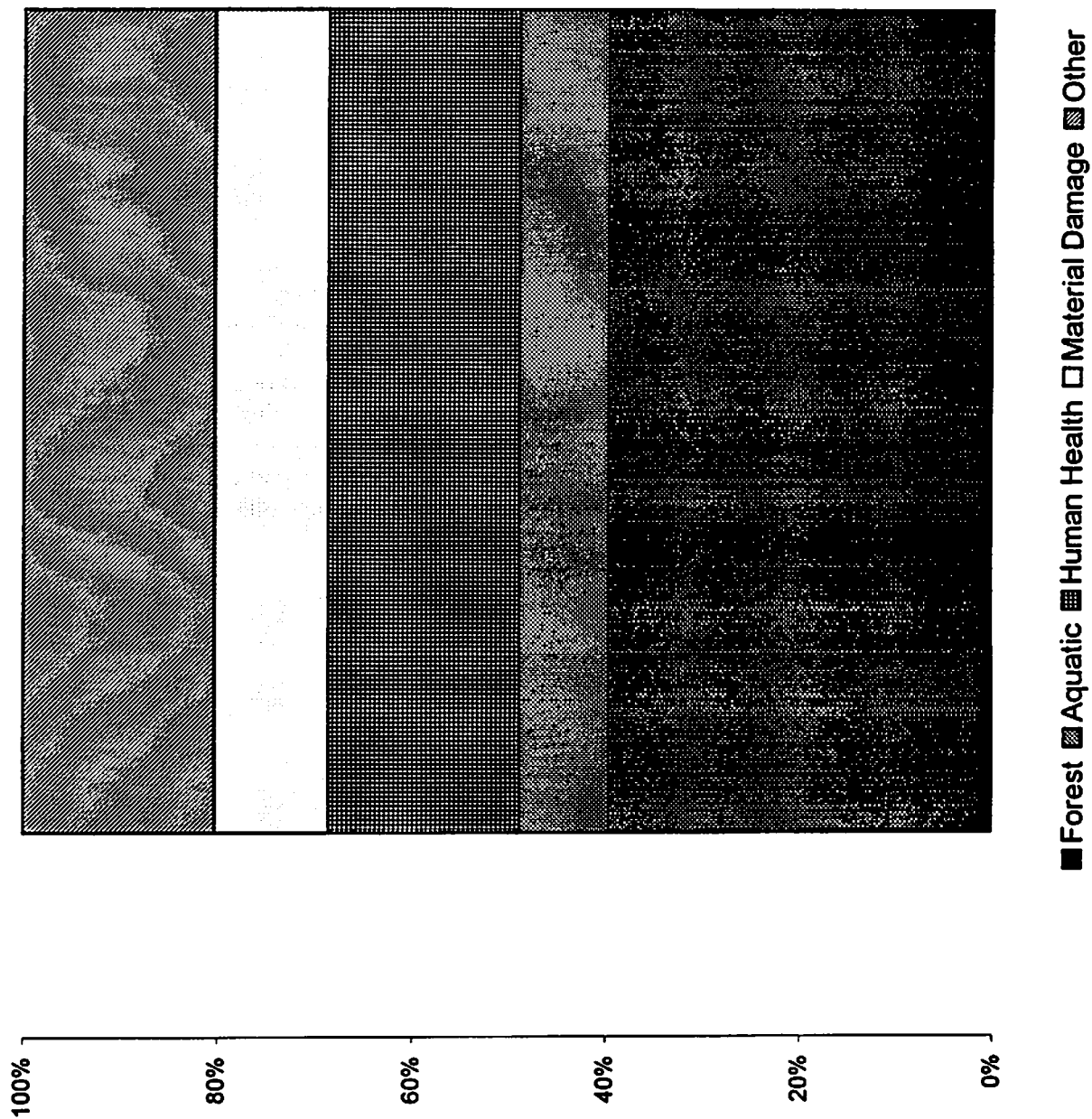


Figure 6. Percentage of all options to manage "acid rain" mentioned in *Népszabadság* articles in a given year belonging to each category, 1980-1992. Each article may have had more than one of the following options categories coded: "Technology - emissions" includes technologies such as those that reduce emissions in power plants and autos, fuel switching, and renewable energies. "Technology - impacts" are technologies designed to mitigate impacts such as liming, fertilizing, or breeding resistant species. "Rules -domestic" includes emissions standards for power plants or autos, and lawsuits. "Rule - international" includes international or bilateral regulations or agreements. "Incentives" could include financial incentives and education.

FIGURE 6
 OPTIONS -- "ACID RAIN"-- HUNGARY
 1980-1992

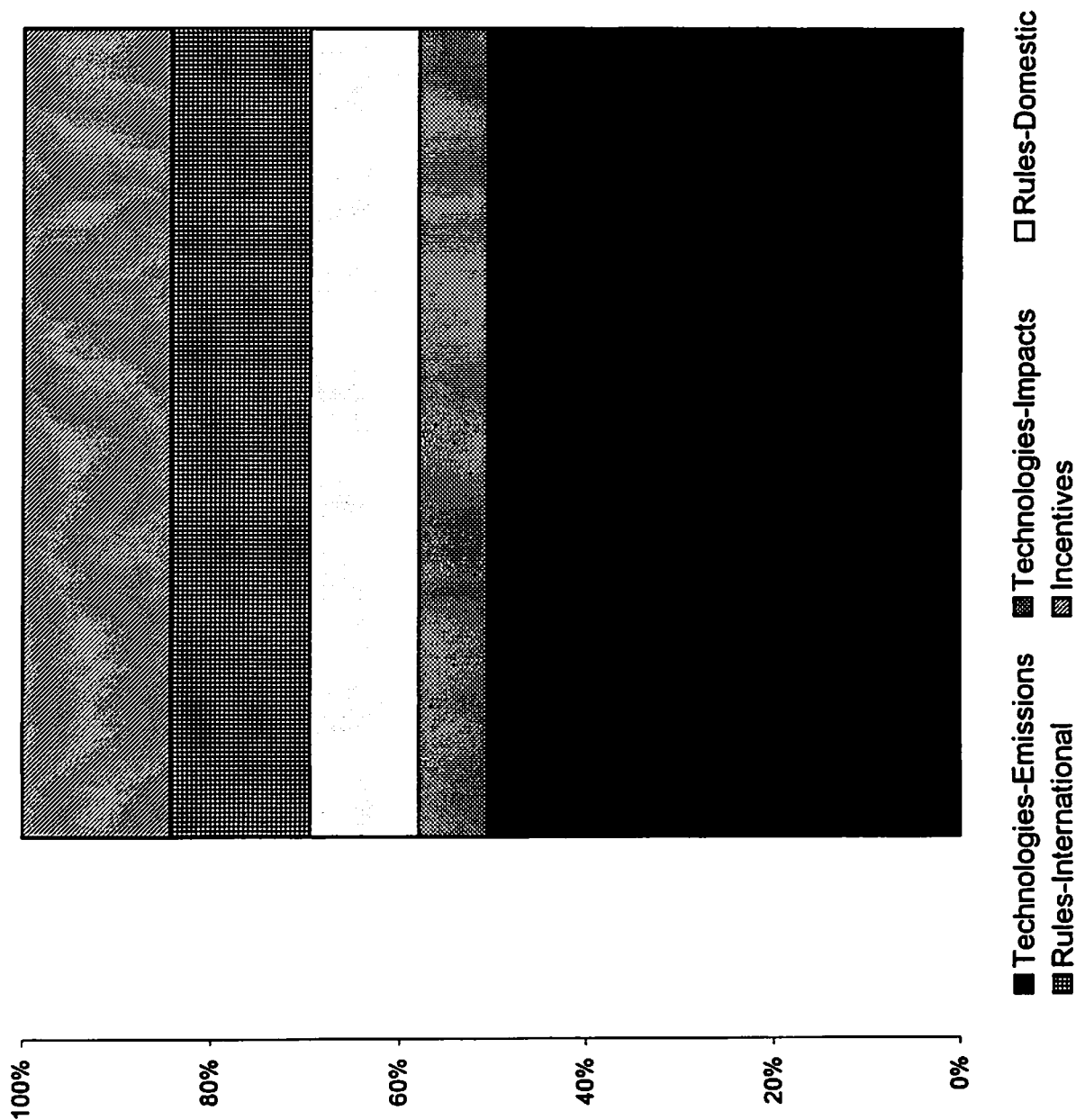


Figure 7. Percentage of *Népszabadság* articles on "acid rain" in a given year that were either for action or against action, 1980-1992. The percentage of articles coded as neutral are not shown. Each article was assigned only to one category.

FIGURE 7
ACTION BIAS -- "ACID RAIN" -- HUNGARY
1980-1992

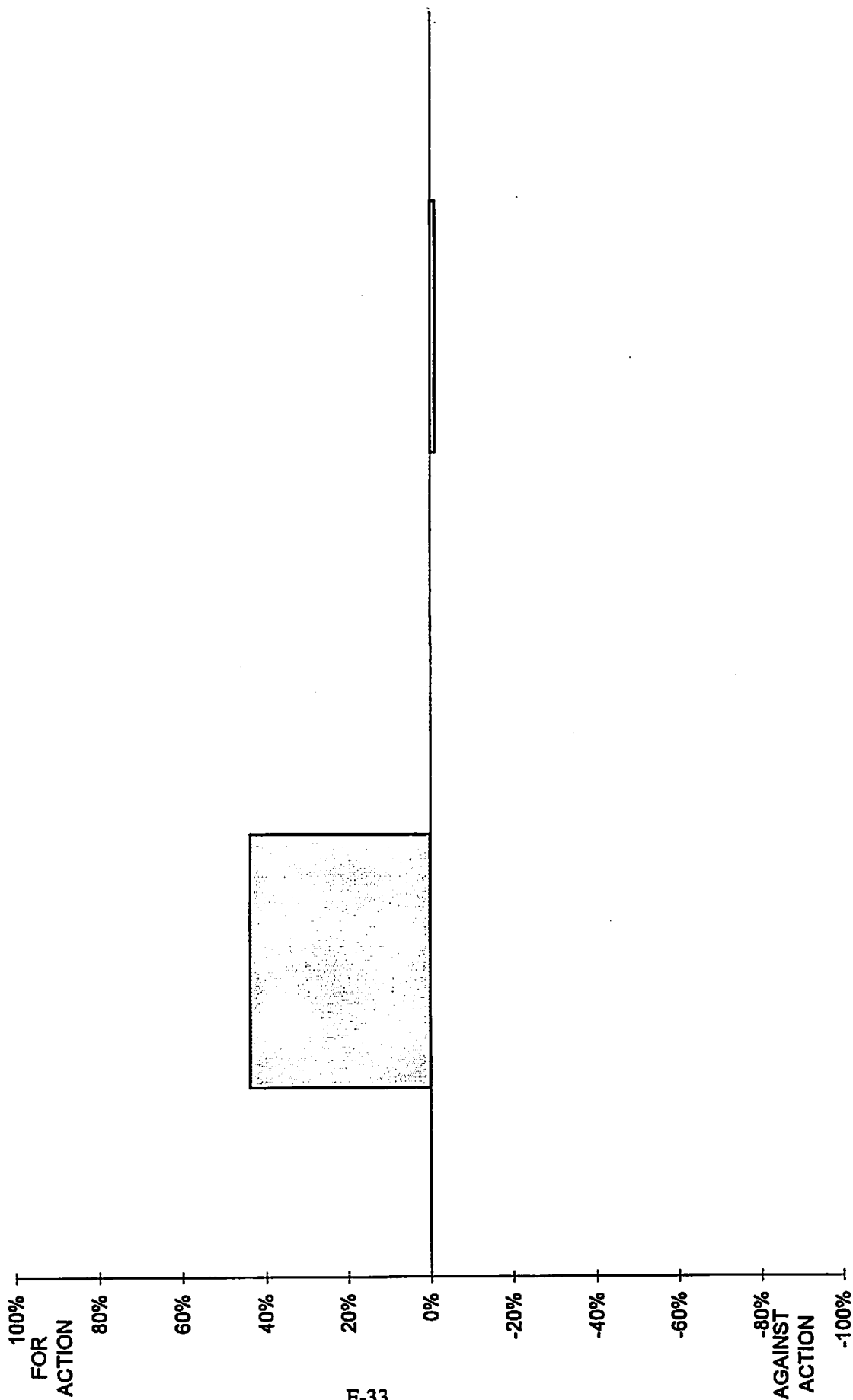
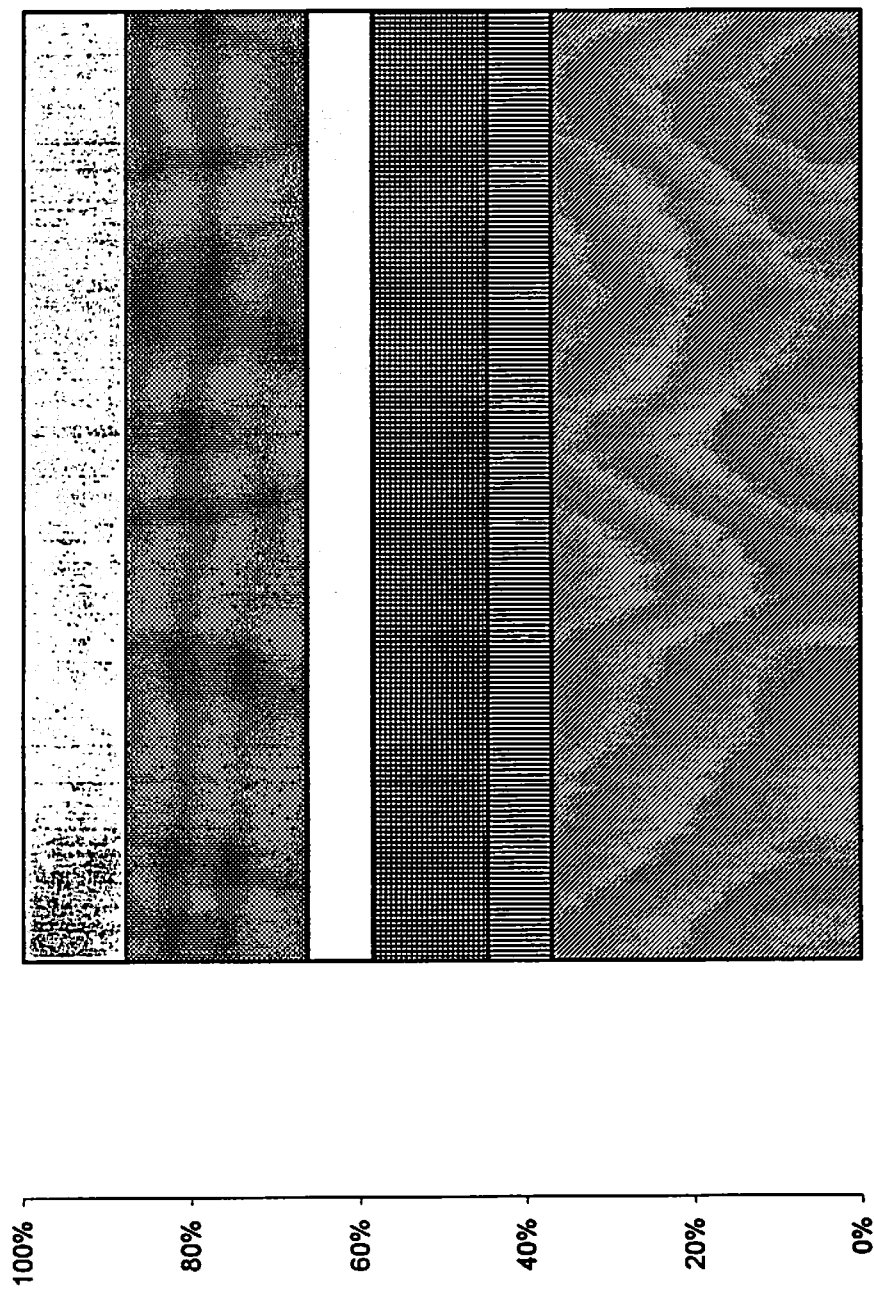


Figure 8. Percentage of news sources that dominated the framing and shaping of "acid rain" articles in *Népszabadság*, 1980-1992. Each article may have had more than one source category coded. "Government - domestic" includes executive, legislative, and judiciary actors. "Government - foreign" includes actors in international organizations. "NGOs" includes environmental non-governmental organizations and environmentalists. "Industry" includes emitter and impacted industries.

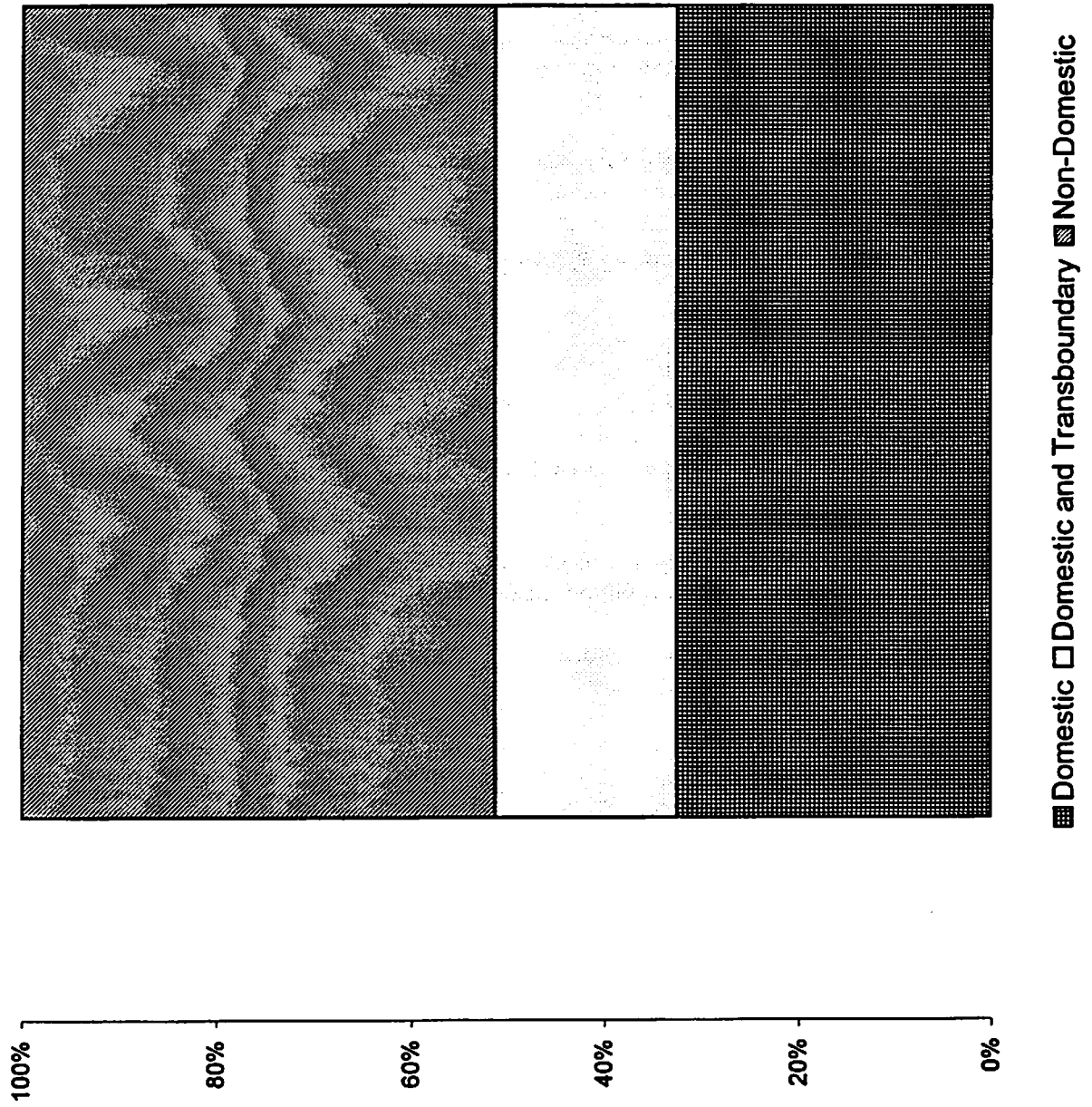
FIGURE 8
NEWS SOURCES - "ACID RAIN" - HUNGARY
1980-1992



■ Government-Domestic ■ Government-Foreign ■ ENGOS ■ Industry ■ Academia □ Other

Figure 9. Percentage of *Népszabadság* articles on "acid rain" in a given year by geographic focus, 1980-1992. Each article was assigned only to one of the following categories: purely a "domestic scope"; "domestic and transboundary" includes those articles that mention transboundary aspects but have a domestic focus; and "non-domestic" includes articles that have the transboundary aspect as the main focus or cover another country's problems.

FIGURE 9
GEOGRAPHIC FOCUS -- "ACID RAIN" -- HUNGARY
1980-1992



Endnotes

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2. See, for example, Mészáros (1965, 1973), Kozák and Mészáros (1971).

3. For example, the Kádár regime created the National Patriotic Front (Hazafias Népfront - HNF) which was based on Kádár's slogan "Anyone not against us, is with us". This implied that people who accepted the existence of the communist regime and the legitimacy of the communist rule were allowed to enter the political scene even if they did not want to become members of the Communist Party.

4. Rather unexpectedly, the Party conference elected Károly Grósz (who, by then, had been prime minister for over 10 months) in the key position of Secretary General and created a new, fully powerless position for Kádár. The powerful Central Committee was also transformed: several hard-core ultraconservative members were replaced by moderate or pro-reform politicians.

5. Critical values for air pollution and conceptual foundations for a smog-alarm system were finally specified by a ministerial decree in 1990.

6. Prior to this group of environmental actors, only a small number of semi-NGOs existed in Hungary as, de facto, an integral part of the state-party system, like the Environmental Committee of the HNF or environmental organizations in the frame of MTESZ (National Alliance of Technical and Scientific Unions).

7. Member organizations of the Nagymaros Committee included a large variety of green movements and environmental groups of newly emerging political and cultural organizations.

8. See Terestyén and Róbert (1984). Information about readership for the rest of the study period was obtained from the project interviews.

9. According to the June 1972 reports published in Népszabadság the (then) German Democratic Republic (GDR) would not have been given the right to vote at the conference. Therefore, the GDR turned down participation altogether. Based on the then ruling principle of "international solidarity" among them, most other East European countries did not participate either. These articles are not included in our press coverage on acid rain.

10. Varallyay et al. (1986) found that high doses of Nitrogen fertilizers make a much larger contribution to acid load of soils in Hungary than atmospheric acid deposition. Somlyódy and Zotter (1986) analyzed data from the national water quality monitoring network and concluded that there are no detectable signs of acidification in the water bodies in Hungary. In addition, they found the chemical composition of the Hungarian water system is favorable with respect to neutralizing acid load.

11. Public protest against transport-related air pollution, especially in Budapest, was increasing after 1990.

12. Hungarian style of journalism is rather different from that of other countries, especially in North America. In Hungary, a reporter would talk to several people, typically including scientists, government officials, and industry representatives. Based on the information collected this way, he/she would write the article without explicitly referring to or quoting his/her sources. Our source statistics cover those articles in which the dominant source was identifiable.

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