

Preliminary Results

The Role of Science in the Environmental Policy Process: A Survey of Bulgarian and American Environmental Organizations



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Introduction

The survey results presented here document the responses of 73 Bulgarian and 69 American environmental organizations (i.e., Directors) to a questionnaire concerning the role of science and scientists in the environmental policy process. Organizations were selected from lists published by the Natural Resources Defense Council in the U.S. (www.nrdcaction.org) and BlueLink in Bulgaria (www.bluelink.net). Faculty, students and researchers from Oregon State University (OSU), the University of Oregon (UO), American University in Bulgaria (AUBG) and BlueLink jointly conducted the study. The main goal of the project is to examine the involvement of ecological scientists in communicating research outcomes to multiple audiences, including the associated opportunities and barriers they encounter, the usefulness of these activities in decision-making processes, and the degree to which such involvement may be interpreted as advocacy and/or affect the credibility of scientists and their role in the policy process. Funding for the study was provided by the U.S. National Academy of Sciences as part of an International Research Experiences for Undergraduates grant (“The Role of Science and Scientists in the Environmental Policy Process: A Comparative Analysis of Bulgaria and the United States”) and the Program for Governmental Research and Education at Oregon State University.

As with all opinion and attitude survey efforts, the wording of questions and other difficulties associated with implementing survey research efforts can result in some error or unintended bias beyond that attributable to the size of the samples employed. *Note:* Frequencies may range from 99% to 101% due to rounding.

PART 1

This initial section of the survey dealt with general background information concerning organizations.

Q-1 Year your Organization was created:

	Mean Year:	Median Year:
Bulgaria	1993	1994
USA	1983	1985

Q-2 In your own words, please state the major purposes of your organization (multiple purposes possible; only top 6 responses reported).

Purpose:	Bulgaria	USA
Environmental Conservation & Preservation	41%	74%
Public Awareness/Disseminating Information (environmental)	41%	31%
Sustainable Development	31%	35%
Access to Environmental Information	15%	17%
Environmental Education	22%	42%
Alternative/Sustainable Tourism	30%	5%

Q-3 a. What is the total number of paid staff currently working for the organization?

Full-Time:	Mean:	Median:
Bulgaria	5.51	2.00
USA	12.07	4.00

Part-Time:	Mean:	Median:
Bulgaria	2.22	1.00
USA	3.09	2.00

b. Do any of these full or part time staff engage in scientific research?

	Yes	No
Bulgaria	38.4%	61.6%
USA	72.5%	27.5%

Q-4 Approximately how many volunteer workers can your organization call upon when needed?

Volunteers:	Mean:	Median:
Bulgaria	61.75	15.00
USA	70.32	25.00

How many work on a regular basis?	Mean:	Median:
Bulgaria	4.58	1.00
USA	9.50	4.50

Q-5 Does your organization have individual memberships?

	Yes	No
Bulgaria	61.6%	38.4%
USA	85.5%	14.5%

If yes, how many members do you have?

	Mean:	Median:
Bulgaria	267.13	39.50
USA	383.76	205.50

Q-6 a. Does your organization have other types of memberships-such as institutional, governmental, club, or group members?

	Yes	No
Bulgaria	21.9%	78.1%
USA	65.2%	34.8%

If yes, how many members do you have?

	Mean:	Median:
Bulgaria	7.21	3.00
USA	25.73	20.00

b. In the list below, please indicate the types of members you have (Please check all that apply):

Types of Members:	Bulgaria	USA
Businesses or corporations	15%	39%
Civic or community organizations	11%	51%
Environmental organizations	8%	30%
Clubs	8%	30%
Research organizations	7%	39%
Units of governmental agencies	4%	32%
Labor organizations	4%	16%

Q-7 Does your organization require membership dues?

	Yes	No
Bulgaria	42.5%	57.5%
USA	85.5%	14.5%

Q-8 What percentage of total staff time is devoted to the following activities?

	Bulgaria	USA
Fundraising	29.9%	20.7%
Political Activities	16.4%	23.6%
Educational Activities	33.7%	34.5%
Scientific or Technical Research	20.0%	21.2%

Q-9 Which of the following best describes the scope of activity of your group? (check all that apply)

	Bulgaria	USA
Global	19.2%	33.3%
National	80.8%	46.4%
State/Oblast	8.2%	73.9%
Regional	57.7%	46.4%
Local	67.1%	47.8%

SECTION 2

In this section of the survey we asked how organizations report and communicate research on natural resource and ecological issues with various audiences.

Q-10 How frequently does your organization engage in the following activities when disseminating the results of research?

How frequently have you engaged in the following activities on an annual basis?

How important do you consider these activities?

- 1. Never
- 2. Infrequently
- 3. Sometimes
- 4. Frequently
- 5. Very frequently

- 1. Not important at all
- 2. Limited importance
- 3. Somewhat important
- 4. Important
- 5. Very important

Bulgaria USA
% Frequently and Very Frequently

Bulgaria USA
% Important and Very Important

29%	12%	a. Publish research results in academic journals.	73%	33%
67%	14%	b. Present research results at professional meetings.	96%	29%
37%	70%	c. Present information at public planning hearings for natural resource agencies.	33%	80%
42%	77%	d. Translate research results into a format that mass media (newspaper, television, etc.) can readily use.	44%	84%
31%	59%	e. Translate research results into a format that elected officials or staff can readily understand and use.	56%	88%
26%	56%	f. Translate research results into a format that natural resource managers can readily understand and use.	56%	74%
10%	5%	g. Provide expert scientific testimony on pending legislation in judicial proceedings.	31%	56%
41%	59%	h. Communicate research results directly to non-scientists through organization/agency publications.	48%	71%
31%	64%	i. Communicate research results directly to non-scientists through the internet.	50%	67%
8%	26%	j. Communicate research results directly to non-scientists through field trips or on-site demonstration.	49%	77%

SECTION 3

The following statements concern the proper role of science and scientists in natural resource management and environmental policy orientations.

Q-11 Please indicate your level of agreement or disagreement with the following statements concerning the scientific process.

		Strongly Disagree	Mildly Disagree	Unsure	Mildly Agree	Strongly Agree
a. Scientists should only report scientific results and leave others to make resource management decisions.	Bulgaria	28%	49%	17%	3%	3%
	USA	39%	46%	6%	9%	0%
b. Scientists should report scientific results and then interpret the results for others involved in resource management decisions.	Bulgaria	3%	18%	11%	35%	33%
	USA	0%	3%	6%	65%	26%
c. Scientists should work closely with managers and others to integrate scientific results in management decisions.	Bulgaria	3%	0%	4%	33%	59%
	USA	0%	9%	2%	30%	59%
d. Scientists should actively advocate for specific natural resource management decisions they prefer.	Bulgaria	8%	7%	24%	26%	35%
	USA	9%	3%	12%	46%	30%
e. Scientists should make natural resource management decisions.	Bulgaria	14%	17%	29%	22%	18%
	USA	25%	49%	9%	14%	3%

Q-12 Which is the best single description of your preferred role for scientists in natural resource policy (select only one from descriptions in Q-11 above):

	Bulgaria	USA
a. Only report findings.	8.6%	10.1%
b. Interpret results.	17.1%	24.6%
c. Integrate results.	42.9%	42.0%
d. Advocate for specific results.	11.4%	20.3%
e. Make natural resource decisions.	20.0%	2.9%

Q-13 Listed below are statements about the relationship between humans and the environment. For each, please indicate your level of agreement

		Strongly Disagree	Mildly Disagree	Neutral	Mildly Agree	Strongly Agree
a. The balance of nature is very delicate and easily upset by human activities.	Bulgaria	0%	1%	7%	40%	51%
	USA	0%	0%	16%	19%	65%
b. Humans have the right to modify the natural environment to suit their needs.	Bulgaria	19%	26%	43%	8%	3%
	USA	38%	35%	23%	4%	0%
c. We are approaching the limit of people the earth can support.	Bulgaria	8%	9%	39%	30%	14%
	USA	2%	6%	6%	41%	45%
d. The so-called "ecological crisis" facing humankind has been greatly exaggerated.	Bulgaria	36%	43%	11%	10%	0%
	USA	64%	17%	17%	1%	0%
e. Plants and animals have as much right as humans to exist.	Bulgaria	1%	1%	6%	35%	57%
	USA	0%	0%	6%	33%	61%
f. Humans were meant to rule over the rest of nature.	Bulgaria	37%	42%	15%	0%	6%
	USA	56%	39%	3%	1%	0%

Q-14 From your perspective, what is the general level of understanding of ecological science for each of the groups listed below.

		None	Limited	Moderate	High	A Great Deal
a. Elected Officials	Bulgaria	32%	42%	18%	6%	3%
	USA	14%	78%	4%	3%	0%
b. Government Managers	Bulgaria	7%	57%	33%	0%	3%
	USA	13%	48%	27%	10%	1%
c. Members of Environmental Groups	Bulgaria	0%	0%	22%	69%	8%
	USA	0%	0%	23%	48%	29%
d. Members of Industry Groups	Bulgaria	10%	49%	33%	8%	0%
	USA	13%	56%	16%	14%	0%
e. General Public	Bulgaria	25%	56%	19%	0%	0%
	USA	9%	25%	51%	14%	1%

Q-15 Please indicate your level of agreement or disagreement with the following statements concerning the scientific process.

		Strongly Disagree	Mildly Disagree	Neutral	Mildly Agree	Strongly Agree
Use of the scientific method is the only certain way to determine what is true or false about the world.	Bulgaria	10%	18%	26%	33%	12%
	USA	19%	16%	12%	35%	19%
The advance of knowledge is a linear process driven by key experiments.	Bulgaria	6%	25%	42%	22%	6%
	USA	12%	33%	35%	20%	0%
Equally valid, but different, scientific interpretations can be made using the same data.	Bulgaria	3%	14%	17%	47%	19%
	USA	0%	6%	7%	51%	36%
Scientific methods are inherently biased to support existing social power structures.	Bulgaria	6%	54%	11%	23%	6%
	USA	22%	29%	19%	29%	1%
Science provides objective knowledge about the world.	Bulgaria	3%	3%	26%	42%	26%
	USA	7%	4%	26%	39%	23%
It is possible to eliminate values and value judgments from the interpretation of scientific data	Bulgaria	0%	26%	26%	42%	6%
	USA	12%	48%	17%	22%	1%
Nonscientists can make valid judgments about the same phenomena studied by scientists using different forms of rationality (e.g., experience).	Bulgaria	0%	27%	19%	49%	6%
	USA	1%	13%	22%	51%	13%
Science provides universal laws or theories that can be verified.	Bulgaria	0%	12%	19%	54%	16%
	USA	7%	3%	17%	43%	29%
Scientists are generally more objective than others involved in natural resource management decisions.	Bulgaria	3%	12%	24%	53%	8%
	USA	13%	13%	35%	35%	4%
Scientific studies are often biased by interpretations acceptable to the funding source.	Bulgaria	0%	18%	39%	35%	8%
	USA	1%	25%	22%	33%	19%