



THE CENTER FOR RURAL COMMUNITY REVITALIZATION AND DEVELOPMENT

A Working Paper*

Environmental Issues and Perceptions of Rural Nebraskans

John C. Allen
Sam Cordes
Amy M. Smith
Matt Spilker
Amber Hamilton



*University of Nebraska-Lincoln
Institute of Agriculture and Natural Resources*



TABLE OF CONTENTS

EXECUTIVE SUMMARY	I
INTRODUCTION	1
METHODOLOGY	1
RESPONDENT PROFILE.....	2
FINDINGS	3
The State's Role in Groundwater Protection	3
Regulation and Compliance Costs	4
Agriculture and the Environment	6
Conjunctive Use	8
CONCLUSIONS	10
FIGURES	
The State's Role in Protecting Groundwater (Figure 1)	3
Environmental Regulation and Business Compliance Costs (Figure 2)	5
Agriculture, the Environment, and Commodity Payments (Figure 3)	7
Conjunctive Water Use (Figure 4).....	8
TABLES	
Table 1 Descriptive Breakdown of Environmental Questions	11
Table 2 Environmental Issues by Occupation, Residence, Education, Population, Gender, Income, and Age.....	12

Environmental Issues and Perceptions of Rural Nebraskans

Executive Summary

This working paper presents findings from the first annual Nebraska Rural Poll. The study is based on 2,754 responses from households in the 87 nonmetropolitan counties in the state. The objectives of this paper are to provide information on how rural Nebraskans view the following issues and questions:

1. Does the state of Nebraska currently do enough to prevent groundwater **depletion**?
2. Does the state of Nebraska currently do enough to prevent groundwater **pollution**?
3. Should requirements for preventing environmental damaged be relaxed to reduce business compliance costs?
4. Should requirements for cleanup of environmental damage be relaxed to reduce business compliance costs?
5. Does the use of chemicals by agricultural producers hurt the environment?
6. If a farmer causes environmental damage should he/she be required to pay for it?
7. Should farm commodity program payments be contingent upon environmental compliance?
8. Should the state of Nebraska legally recognize the relationship between ground and surface water (conjunctive use)?

Key findings include the following:

- Rural Nebraskans are about equally divided in their opinions of whether the state does enough to prevent groundwater depletion (38% yes, 34% no).
- Forty-two percent of rural Nebraskans believe that the state does not do enough to prevent groundwater pollution.
- Farmers are more likely than other occupational groups to believe the state does enough to prevent groundwater depletion and pollution.
- Over half of rural Nebraskans (58%) do not believe that regulatory requirements for prevention of environmental damage should be relaxed to reduce business compliance costs.

- Those individuals in rural Nebraska with higher levels of educational attainment are less likely to believe that environmental regulations should be relaxed to reduce business compliance costs.
- Sixty-three percent of rural Nebraskans do not believe that the regulatory requirements for cleanup of environmental damage should be relaxed.
- Over one-half of rural Nebraskans (58%) believe that agriculture's use of chemicals hurts the environment.
- Sixty percent of rural Nebraskans believe that farm commodity program payments should be tied to environmental compliance.
- Sixty-three percent of rural Nebraskans agree that the state should legally recognize the relationship between ground and surface water (conjunctive use).

Introduction

Environmental issues have surfaced across the nation during the last twenty years. Nebraskans have also been asking questions such as: What is the role of the state in protecting environmental integrity? What role should regulation play in enhancing environmental quality? What role does agriculture play in the balance between economic development and environmental quality? The Nebraska Rural Poll asked these questions and the following is a summary of the results.

Methodology and Respondent Profile

This study is based on 2,754 responses from Nebraskans living in non-metropolitan counties in Nebraska. A self-administered questionnaire was mailed to 6,200 randomly selected households. Metropolitan counties not included in the sample were the six Nebraska counties that are part of the Omaha, Lincoln, and Sioux City metropolitan areas. All of the other 87 counties in the state were sampled. The 14 page questionnaire included questions pertaining to well-being, access to services, environment, public policy issues, and work. This report will report only on the environmental portion of the survey. A 45% response rate was achieved using the Total Design Method (Dillman, 1978). The sequence of steps in the survey process were:

1. A “pre-notification” letter was sent first. This letter requested participation in the study, and was signed by the Governor of Nebraska and the President of the University of Nebraska.
2. The survey was mailed with an informational letter about seven days subsequent to the “pre-notification” letter being sent. The letter was signed by the project director.
3. A reminder postcard was sent to the entire sample approximately seven days after the survey (Step #2) had been sent.
4. Those who had not responded within approximately 14 days of the original mailing were then sent a replacement questionnaire.

Respondent Profile

The profile of the respondents reflects an aging population. The average respondent was 53 years of age. Seventy-five percent were married, and seventy percent lived in a town or village. On average, respondents had lived in their current town or village 32 years. Sixty percent of the respondents were living in towns or villages smaller than 5,000 people. Eighteen percent indicated they were farmers or ranchers. Thirty-three percent reported that they worked in a professional, technical, or administrative job.

Sixty-two percent of the respondents reported an approximate household income from all sources, before taxes, for 1995 of below \$40,000. Twenty-three percent reported incomes of over \$50,000. Ninety-one percent had attained at least a high school diploma.

Thirty-five percent reported that their spouse or partner worked full time, and an additional fifteen percent said their spouse or partner was working part time. Fifteen percent also reported that their spouse or partner was retired.

Findings

A large amount of data was generated from the rural poll and is reflected in the subsequent tables and figures. Only selected comments will be made on the data presented. The reader is encouraged to study the tables and figures to draw additional conclusions and insights.

The State's Role in Groundwater Protection

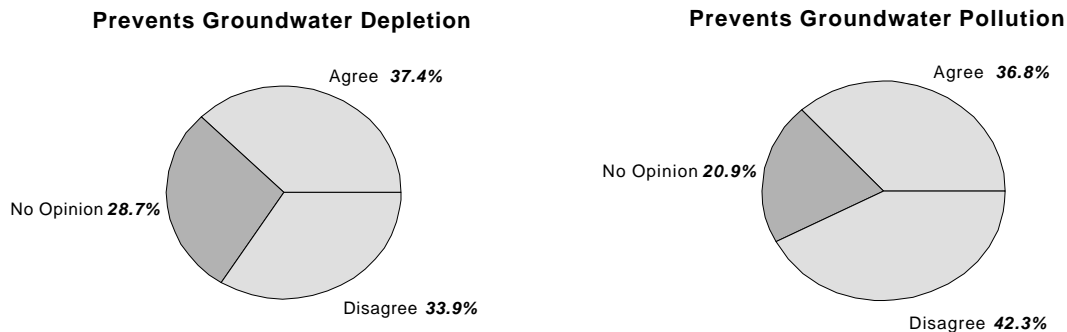
The role of the state in protecting groundwater has been discussed for several years in Nebraska. To address this issue respondents were asked the following questions:

*The state of Nebraska currently does enough to prevent groundwater **depletion**.*
(Strongly Agree to Strongly Disagree)

*The state of Nebraska currently does enough to prevent groundwater **pollution**.*
(Strongly Agree to Strongly Disagree)

Almost 38 percent of the respondents agreed that the state of Nebraska currently does enough to prevent groundwater depletion (Figure 1). Nearly twenty-nine percent had no opinion, and 33.9 percent disagreed with the statement. When the focus shifted from groundwater depletion to pollution, a somewhat larger proportion disagreed that the state of Nebraska was currently doing enough (33.9 percent with respect to the depletion of groundwater, and 42.3 percent when asked about pollution).

Figure 1. The State's Role in Protecting Groundwater



Responses were also analyzed according to the size of community in which the respondent lived, their spending income, age, occupation, education level, and whether or not they lived in town or out of town. Several of these factors appear to be important in influencing the answers and perceptions of the respondents. Of those with education levels below the 9th grade, 51 percent agree that the state does enough to prevent groundwater depletion, while of those with bachelor degrees and graduate professional degrees, only 38 percent and 31 percent, respectively, believe the state does enough (Table 2). Forty-seven percent of those living outside a town boundary agree that the state does enough, compared to 33 percent of those living within a town. Occupation also is relevant. For example, 24 percent of manual laborers agree that the state does enough to prevent groundwater depletion, while 61 percent of farmers/ranchers believe the state does enough (See Table 2 for complete breakdowns by categories).

The educational level of the respondents, occupation, place of residence, and gender are also related to how rural Nebraskans perceive the state's role in preventing groundwater **pollution**. Forty-six percent of those with less than a 9th grade education responded that they agree that the state does enough, compared to 30 percent of those with graduate or professional degrees.

Only 28 percent of manual laborers agreed that the state does enough to prevent groundwater pollution, while 62 percent of the farmer/ranchers responded that they agree the state does enough to prevent groundwater pollution. Forty-six percent of those living out of town agreed, while only 32 percent of those living in town agreed that the state does enough to prevent groundwater pollution. Gender was also significant. Forty percent of the males agreed that the state does enough to prevent groundwater pollution while only 27 percent of the females in rural Nebraska agreed. A similar finding occurred when the focus was on groundwater depletion.

Regulation and Compliance Costs

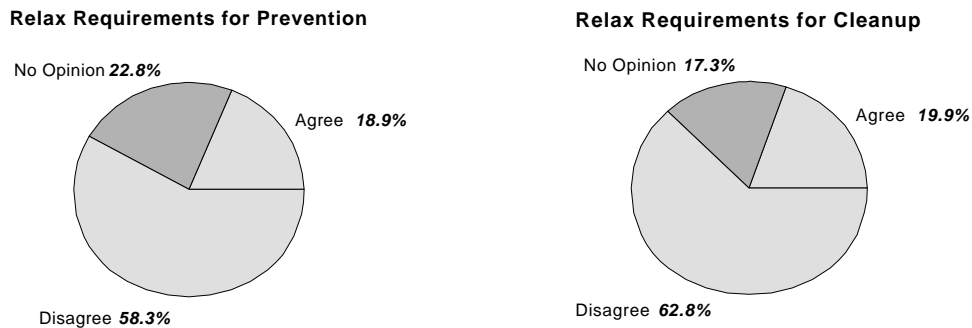
Attitudes towards business regulation pertaining to environmental protection is another area being discussed at the federal and state levels. The respondents were asked the following questions pertaining to business compliance costs:

Requirements for preventing environmental damage should be relaxed to reduce business compliance costs. (Strongly Agree to Strongly Disagree)

Requirements for cleanup of environmental damage should be relaxed to reduce business compliance costs. (Strongly Agree to Strongly Disagree)

Nineteen percent of the respondents agreed that requirements for preventing environmental damage should be reduced (Figure 2). Fifty-eight percent of the respondents disagreed that requirements should be relaxed and about 23 percent had no opinion. Approximately the same proportions held when the respondents were asked if requirements for cleanup should be relaxed.

Figure 2. Environmental Regulation and Business Compliance Costs



Educational attainment, population of the closest town, income, and occupation showed differences in their attitudes toward whether regulations preventing environmental damage should be relaxed. While 35 percent of the respondents with less than a 9th grade education disagreed that environmental regulations should be relaxed, 67 percent of those with a graduate or professional degree disagreed (Table 2). Individuals living in towns of less than 100 population were more likely to agree (27%) that regulations should be relaxed compared to those living in communities with 10,000 or more population (16%). As for household income, 17 percent of those making less than \$10,000 per year agreed that regulations should be relaxed while 25 percent of those making more than \$75,000 per year agreed. Farmers were slightly more likely to agree that regulations should be relaxed (28%) compared to other occupational groups (e.g., 12% in the case of skilled laborers).

The population of the closest village or town, educational attainment, and age were related to how individuals responded to the question pertaining to relaxing regulations for **cleanup** of environmental damage. Thirty-one percent of those living in communities of less than 100 population agreed that regulations concerning cleanup should be relaxed compared to 16 percent of those living in communities over 10,000 population. Individuals with higher educational attainment were also more likely to disagree that the regulations should be relaxed. Forty-nine percent of those rural Nebraskans with education levels below a 9th grade education disagreed that regulations should be relaxed compared to 68 percent of those with graduate or professional degrees. Older residents were more likely to agree that the regulations should be relaxed. Twenty-three percent of those over 65 years of age believed the regulations should be relaxed compared to 9 percent of those 19 to 29 years of age.

Agriculture and the Environment

What role does agriculture play in retaining environmental quality? What is the link between federal commodity programs and environmental integrity? These questions were addressed in the study by asking respondents the extent to which they agreed or disagreed with the following:

Agriculture's use of chemicals hurts the environment. (Strongly Agree to Strongly Disagree)

If a farmer causes environmental damage he/she should be required to pay for it. (Strongly Agree to Strongly Disagree)

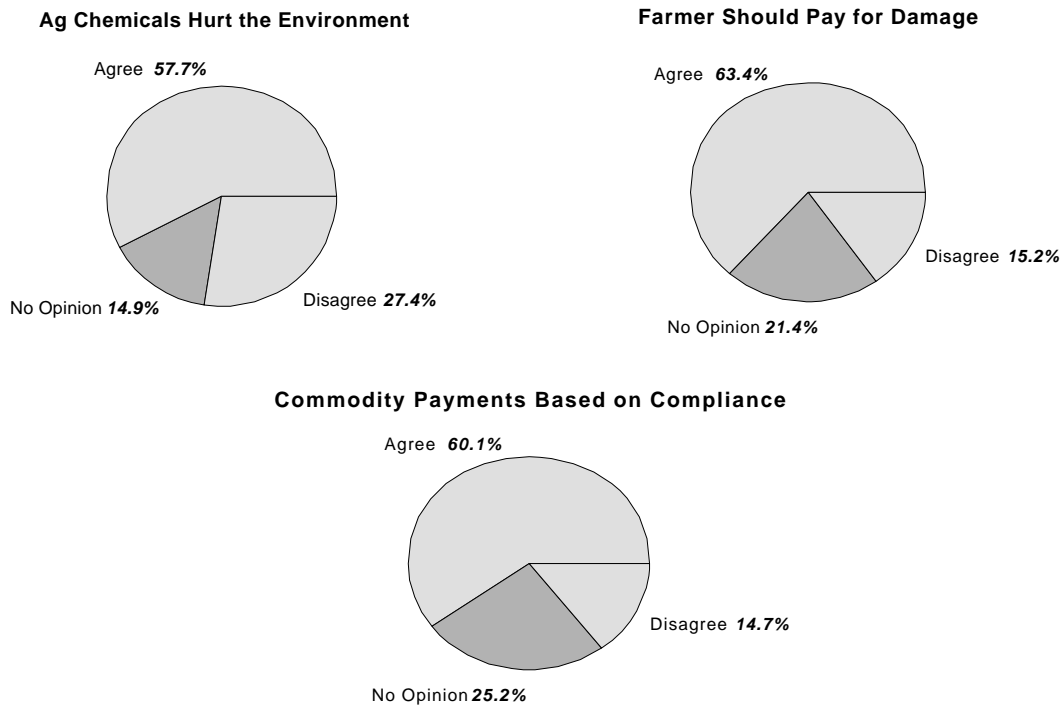
Farm commodity program payments should be contingent upon environmental compliance. (Strongly Agree to Strongly Disagree)

In Nebraska, agriculture plays a primary role in the state's economy. When rural Nebraskans were asked whether agriculture's use of chemicals hurts the environment, 58 percent agreed that it hurts the environment (Figure 3). Twenty-seven percent disagreed, while about 15 percent had no opinion.

Income, occupation, and place of residence influence perceptions of the impact of agriculture's use of chemicals on the environment (Table 2). Forty-six percent of the respondents having a household gross income of more than \$75,000 agreed that agriculture's use of chemicals

hurts the environment, compared to 60 percent of those making less than \$10,000 per year. Farmers are much less likely to agree with the statement (24%) than other occupational groups. Those individuals living in town are more likely to agree with the statement (64%) that agriculture hurts the environment with its use of chemicals, compared to 44 percent of those living outside of a town.

Figure 3. Agriculture, the Environment, and Commodity Payments



Over 60 percent agreed that a farmer be required to pay for any environmental damage caused by farmers, while 15 percent disagreed, and about 22 percent had no opinion (Figure 3). The population of the town in which the respondents lived influenced their responses (Table 2). Forty percent of those living in communities of less than 100 people agreed that farmers should pay for damage they cause compared to 70 percent of those living in communities of 10,000 people or more.

Another issue that links agriculture to environmental issues is the relationship between commodity payments from the federal government and environmental compliance. When the respondents were asked if farm commodity program payments should be contingent upon

environmental compliance, 60 percent of respondents agreed that the payments should be contingent upon environmental compliance. Fifteen percent of the rural Nebraskans polled disagreed and 25 percent had no opinion (Figure 3).

Occupation, income, and the population of the town lived in were significantly related to how individuals responded to the question asking if commodity payments should be tied to environmental compliance (Table 3). Farmers were more likely to disagree with the statement (29%) than were other occupational groups, and yet 47 percent agreed with the statement, with 24 percent having no opinion. Income was also related to how rural Nebraskans responded to the question. Households with incomes of \$75,000 or more were more likely to disagree that payments should be tied to environmental compliance. However, only 25 percent of these higher income households disagreed with the statement.

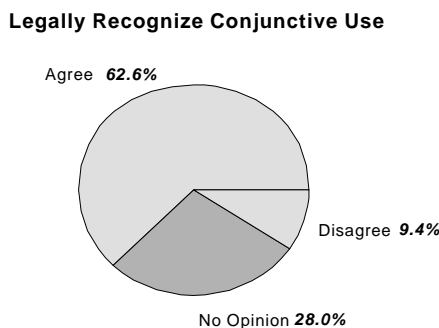
Conjunctive Use

For several years, the state legislature has discussed the legal relationship between surface water and groundwater (conjunctive use). The following question was asked to identify the attitudes of rural Nebraskans towards legally recognizing the relationship between surface and groundwater.

The State of Nebraska should legally recognize the relationship between ground and surface water (conjunctive use). (Strongly Agree to Strongly Disagree)

Sixty-three percent of the respondents agreed that the state of Nebraska should legally recognize the relationship between ground and surface water (conjunctive use). Nine percent disagreed and 28 percent had no opinion (Figure 4).

Figure 4. Conjunctive Water Use



Conjunctive use was one area of questioning where relatively little variation existed in responses based on age, income, or town size (Table 2). The most variation appeared to be in terms of occupation and where the respondent lived. Respondents who lived out of town or in towns of less than 500 people were less likely to agree with the statement in comparison to respondents living in town -- especially in larger sized towns. Additionally, only 47 percent of the farmers/ranchers agreed with the statement that Nebraska should legally recognize conjunctive use. This proportion was smaller than for any other occupational group.

Conclusions

As policy makers and local officials reflect on the findings of this statewide study, it is important to understand that these findings are like a snapshot. The results are the beliefs, attitudes, and opinions of rural Nebraskans at a given point in time. Yet there are some basic policy questions and considerations this research may help illuminate.

Nebraskans are split in their opinions about whether the state does enough to prevent groundwater depletion. Slightly over a third of the rural population believe that it does do enough and slightly more than a third believe it does not do enough. It is interesting to note that about 29 percent of the population had no opinion.

Occupation influences how individuals respond. Farmers are more likely to believe that the state does do enough to prevent groundwater depletion and pollution.

Rural Nebraskans believe regulations should not be relaxed concerning overall environmental regulation and environmental cleanup. On average, 58 percent of rural Nebraskans believe that the use of chemicals by farmers hurts the environment. They also believe that farm commodity payments should be tied to environmental compliance (60%).

A majority of rural Nebraskans believe that the state should legally recognize the relationship between ground and surface water (conjunctive use).

Table 1. Descriptive Breakdown of Environmental Questions

	<i>Strongly Agree</i> ▼	▼	<i>No Opinion</i> ▼	▼	<i>Strongly Disagree</i> ▼
a. The state of Nebraska currently does enough to prevent ground water <u>depletion</u> .	11.5 (311)	25.9 (694)	28.7 (771)	21.3 (569)	12.6 (339)
b. The state of Nebraska currently does enough to prevent ground water <u>pollution</u> .	9.9 (266)	26.9 (722)	20.9 (562)	25.7 (689)	16.6 (446)
c. Requirements for <u>preventing</u> environmental damage should be relaxed to reduce business compliance costs.	6.3 (167)	12.6 (335)	22.8 (606)	31.3 (834)	27.0 (718)
d. Requirements for <u>cleanup</u> of environmental damage should be relaxed to reduce business compliance costs.	5.7 (152)	14.2 (377)	17.3 (458)	34.4 (914)	28.4 (754)
e. Agriculture's use of chemicals hurts the environment.	26.2 (703)	31.5 (843)	14.9 (400)	17.4 (465)	10.0 (268)
f. If a farmer causes environmental damage he/she should be required to pay for it.	25.7 (690)	37.7 (1010)	21.4 (574)	9.1 (245)	6.1 (164)
g. Farm commodity program payments should be contingent upon environmental compliance.	22.8 (607)	37.3 (993)	25.2 (672)	8.8 (235)	5.9 (156)
h. The state of Nebraska should legally recognize the relationship between ground and surface water (conjunctive use).	25.8 (691)	36.8 (983)	28.0 (750)	4.9 (131)	4.5 (121)

**Values are percentages - numbers in parentheses are number of respondents.*

Center Working Paper 96-2

This project benefitted greatly from the in-kind support provided through the Partnership of Rural Nebraska and the individuals and organizations associated with the Partnership. A special note of appreciation is extended to the staff and student workers in the Center for Rural Community Revitalization and Development for data entry and administrative and staff support.

*Center Working Papers are used to present preliminary policy and programmatic ideas and research findings to a limited audience in a timely manner. Working Papers have not necessarily been peer reviewed and the content is the sole responsibility of the author(s). Any questions, suggestions, or concerns should be sent directly to the author(s).

© graphic used with permission of the designer, Richard Hawkins, Design & Illustration, P.O. Box 21181, Des Moines, IA 50321-0101
Phone: 515.288.4431, FAX: 515.243.1979

It is the policy of the University of Nebraska-Lincoln not to discriminate on the basis of sex, age, disability, race, color, religion, marital status, veteran's status, national or ethnic origin, or sexual orientation.
