

# Communicating Environmental Geoscience

## 1. Introduction

Thanks for choosing to complete this survey. This is a project of the "Communicating Environmental Geoscience" working group of the International Union of Geological Sciences Commission "Geoscience for Environmental Management". The objective of the survey is to determine attitudes of environmental geoscientists towards communication and public engagement, as a compliment to similar surveys of scientists in general. Previous surveys have been country-specific, so the aim is to make this survey as international in scope as possible; a Spanish language version is on-line at [http://www.surveymonkey.com/s.aspx?sm=yvNigB6HK8fwZ4umjODNzQ\\_3d\\_3d](http://www.surveymonkey.com/s.aspx?sm=yvNigB6HK8fwZ4umjODNzQ_3d_3d), and we're looking for volunteers to translate into other languages. We hope to publish the results of the survey in a refereed paper. We believe the results will be of interest to many working in environmental geoscience.

All personal information collected in this survey will be kept strictly confidential, and any reports of results from the survey will not identify any individual respondent.

There are 39 questions, most of which require only short answers, but there is also the opportunity to provide more extended answers if you choose. The survey should take 20-30 minutes to complete.

Any questions or concerns should be directed to the chair of the working group, Dave Liverman ([dliverman@gov.nl.ca](mailto:dliverman@gov.nl.ca))

## 2. Basic information

Some basic information on age, location, and background

### 1. Please tell us about yourself; all information will be kept strictly confidential, and no unsolicited e-mails will be sent out

Name:	<input type="text"/>
Organization/Company:	<input type="text"/>
Address:	<input type="text"/>
Address 2:	<input type="text"/>
City/Town:	<input type="text"/>
Province/State:	<input type="text"/>
ZIP/Postal Code:	<input type="text"/>
Country:	<input type="text"/>
Email Address:	<input type="text"/>
Phone Number:	<input type="text"/>

### 2. What is your gender?

Male

Female

No response

### 3. What age group do you fit in?

less than 30

30 to 40

40 to 50

50 plus

### 4. What is your education level?

Undergraduate degree

Masters degree

Doctorate

Other

# Communicating Environmental Geoscience

## 5. What are your main fields of research (tick all that apply)

- geohazards- volcanoes
- geohazards- multi-hazard
- geohazards- earthquakes and tsunami
- geohazards- avalanches
- geohazards - social sciences
- Hydrogeology
- GIS
- Land-use planning
- Coastal issues
- Science communication
- geohazards- flooding
- geohazards - landslides
- geochemistry
- engineering geology
- environmental geoscience
- management
- policy

Other (please specify)

## 6. Describe your employer

- University
- Government
- Industry
- Non-government organization (NGO)
- Private consultant
- Self-employed
- Other

Other (please specify)

## 7. What best describes your main role in your current position-

- Research
- Research and teaching
- Administration and research
- Teaching only
- Administration only
- Consultant
- Other

Other (please specify)

# Communicating Environmental Geoscience

## 8. How many years have you been involved in environmental geoscience?

- Less than 5 years
- 5-10 years
- 10-20 years
- more than 20 years

## 9. What main groups do you communicate environmental geoscience to (tick all that apply)?

- Scientists
- Teachers
- Students (pre-university)
- University students
- General public
- Government officials
- Politicians

Other (please specify)

## 10. What means do you use to communicate (tick all that apply)?

- Scientific articles
- Popular articles and books
- Scientific meetings
- TV/ Radio
- Newspapers
- School visits
- Public meetings

Other (please specify)

## 3. Geoscience and the media

# Communicating Environmental Geoscience

## 1. Have you had any training in dealing with the media?

- Yes
- No
- Don't know

## 2. Would you be willing to take a course that would help you communicate better with journalists and the public?

- Yes
- No
- Have already taken such a course

## 3. Has your work been reported in media in last 12 months?

- Yes
- No

## 4. How often have you been interviewed or written about for a science news story?

- Often
- Several times each year
- Once or twice in last 5 years
- Never

## 5. When your work has been the subject of media coverage how satisfied have you been by the coverage?

- Very satisfied
- Somewhat satisfied
- neutral
- somewhat dissatisfied
- very dissatisfied
- N/A

# Communicating Environmental Geoscience

## 6. How would you rate the level of scientific knowledge and understanding of the journalists who wrote about your work

- Excellent
- Good
- Adequate
- Inadequate
- Poor
- NA

## 7. Do you agree or disagree with the following statements

	Strongly agree	Somewhat agree	Neutral/ Depends	Somewhat disagree	Strongly disagree	Don't know
The news media are more interested in negative stories about Environmental Geoscience than positive stories	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Scientists are afraid that new stories about their work will embarrass them before their peers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Few members of the news media understand the nature of Environmental Geoscience (i.e. scientific method)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Most scientists are so intellectual and immersed in their own jargon that they can't communicate with journalists or the public	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Members of the news media rarely get details about Environmental Geoscience correct	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Environmental Geoscience is too complex to be covered in mainstream newsmedia	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Most journalists and the public do not understand probability and statistics well enough to understand the results of environmental geoscientific research	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

## 4. General communication issues

# Communicating Environmental Geoscience

**1. What training, if any, have you had in communicating science to the non-specialist public? Do not include any teaching training you may have had.**

No training

Formal training

Experience only

**2. Were courses in scientific communication part of your education?**

Yes

No

**3. Is your institution generally supportive towards researchers who take part in activities to engage the non-specialist public in science?**

Very supportive

Quite supportive

Unsupportive

Very unsupportive

Don't know/ N/A

**4. Are your colleagues generally supportive towards those who take part in activities to engage the non-specialist public in science?**

Very supportive

Quite  
supportive

Neutral

Unsupportive

Very  
unsupportive

Don't know/ N/A

**5. Do other members of your department/ group take part in activities that engage the non-specialist public in science?**

Yes, most of them

Yes, some of them

Yes, one or two of them

None of them

Don't know

## Communicating Environmental Geoscience

**6. Would you like to spend more time, less time or about the same amount of time as you do now engaging with the non-specialist public about science?**

More time

About the same

Less time

Don't know

**7. How easy or difficult do you think it is to get involved in science engagement activities for those who want to do so?**

Easy

Fairly easy

Somewhat Difficult

Difficult

Don't know

**8. How well equipped do you personally feel you are to engage with the non-specialist public about your research?**

Well equipped

Fairly well equipped

Inadequately equipped

Not well equipped

Don't know

# Communicating Environmental Geoscience

**9. Thinking about public engagement with, and communication about, science, roughly how often in the past 12 months have you done each of the following?**

	Frequently	Several times	Once or twice	Not at all
Worked with teachers/schools	jn	jn	jn	jn
Participated in an institutional open day	jn	jn	jn	jn
Given a public lecture	jn	jn	jn	jn
Taken part in a public dialogue event/debate	jn	jn	jn	jn
Been interviewed on radio	jn	jn	jn	jn
Been interviewed by a newspaper journalist	jn	jn	jn	jn
Written for the non-specialist public	jn	jn	jn	jn
Engaged with policy-makers	jn	jn	jn	jn
Engaged with Non-Governmental Organisations	jn	jn	jn	jn
Worked with science centres/museums	jn	jn	jn	jn
Judged competitions	jn	jn	jn	jn

## 5. Public engagement

**1. How important do you feel it is that you personally, in your current post, directly engage with each of the following groups about your research?**

	Very important	Important	Neutral	Not important	Not required
General public	jn	jn	jn	jn	jn
Politicians	jn	jn	jn	jn	jn
Policy makers	jn	jn	jn	jn	jn
NGOs	jn	jn	jn	jn	jn
Schools	jn	jn	jn	jn	jn
Scientists within discipline	jn	jn	jn	jn	jn
Scientists and engineers outside of discipline	jn	jn	jn	jn	jn
Social scientists within discipline	jn	jn	jn	jn	jn
Social scientists outside discipline	jn	jn	jn	jn	jn

# Communicating Environmental Geoscience

## 2. Which of these groups do you find it easiest to talk with about your research findings?

- General public
- Politicians
- Policy makers
- NGOs
- Schools
- Scientists within discipline
- Scientists and engineers outside of discipline
- Social scientists within discipline
- Social scientists outside discipline

## 3. Which of these groups do you find it most difficult to talk with about your research findings?

- General public
- Politicians
- Policy makers
- NGOs
- Schools
- Scientists within discipline
- Scientists and engineers outside of discipline
- Social scientists

# Communicating Environmental Geoscience

## 4. Looking at the list below, what do you think is the main reason for scientists to engage with the non-specialist public?

- To ensure the public is better informed about science and technology
- To influence public behaviour and attitudes
- To raise awareness of science generally
- To raise awareness about your subject
- To contribute to public debates about science and scientific issues
- To be accountable for the use of public funds
- To generate/stimulate additional funds for universities and colleges
- To contribute to discussions about the social and ethical issues science can raise
- To recruit students to your subject

## 5. Looking at the list below, what do you think is the main drawback to scientists generally engaging with the non-specialist public?

- It takes up time that is better used on research
- There are no drawbacks to engaging with any of these groups
- It can send out the wrong messages
- It makes them a target
- Not enough hours in the day
- It takes up time that is better used on other, non-research, activities
- Most scientists are bad at It / misrepresentation

# Communicating Environmental Geoscience

**6. Below are some things that people have said about engaging with the non-specialist public about environmental geoscience.**

**Please indicate whether you agree or disagree with each statement.**

	Agree	Disagree	No opinion/ Depends on situation
Scientists who communicate a lot are not well regarded by other scientists	jn	jn	jn
Engaging with the non-specialist public might help researchers make new contacts for their research	jn	jn	jn
Funders of scientific research should help scientists to communicate with the non-specialist public	jn	jn	jn
Scientists have a moral duty to engage with the non-specialist public about the social and ethical implications of their research	jn	jn	jn
I don't think my research is interesting to the non-specialist public	jn	jn	jn
The main reason to engage with the non-specialist public is to get their support for science	jn	jn	jn
I simply don't have time to engage with the non-specialist public	jn	jn	jn
I would not want to be forced to take a public stance on the issues raised by my research	jn	jn	jn
Engagement with the non-specialist public is best done by trained professionals and journalists	jn	jn	jn
Engaging the non-specialist public in science is personally rewarding	jn	jn	jn
My research is too specialised to make much sense to the non-specialist public	jn	jn	jn
I would need help to develop a science engagement project	jn	jn	jn
I would be happy to take part in a science engagement activity that was organised by someone	jn	jn	jn

# Communicating Environmental Geoscience

else

Public engagement could help with my career	jñ	jñ	jñ
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Engaging with the non-specialist public is best done by senior researchers	jñ	jñ	jñ
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There are no personal benefits for me in engaging with the non-specialist public	jñ	jñ	jñ
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## 7. What is stopping you from getting (more) involved in activities that engage the non-specialist public in science?

- Not enough time
- I need to spend more time on my research / need to spend more time getting funding for my research
- I would have to do it in my own time
- I need to spend more time on administration
- I need to spend more time teaching
- I am too junior
- There is not enough funding
- There is no senior level support
- I am already involved enough
- I just don't want to
- Lack of opportunity/I don't know how
- Peer pressure
- I feel that I am encroaching on Press Office work

# Communicating Environmental Geoscience

**8. What would encourage you personally to get involved in activities that engage the non-specialist public in science (tick all that apply)?**

- Public Engagement Infrastructure
- Recognition
- Skills and training
- If it was part of my job
- Time (General)
- Interested educated public
- Institutional support
- Public Engagement Funding
- More support from my head of department/ supervisor/ manager

## 6. Policy

**1. Do you think your work has implications for society and/or policy-makers and regulators**

- Yes, major implications
- Yes, some implications
- Only marginal implications
- No implications
- Don't know

**2. Have you been involved in developing policy based on your research?**

- Yes, often
- Yes, occasionally
- Yes, rarely
- No, never
- Don't know

# Communicating Environmental Geoscience

## 3. How effective has your scientific input been in directing policy direction

- Very effective
- Somewhat effective
- Ineffective
- Don't know

## 4. What in your view are the barriers to using geoscience to inform policy (tick any that apply)?

- Lack of scientific background of policy makers
- Lack of access to policy makers
- Difficulty of communicating probability and risk
- Difficulty of communicating complex scientific concepts
- Short-term focus of policy
- Other (specify)

## 7. Conclusion

### 1. Any other comments on the topic of communicating environmental geoscience?

### 2. Are you interested in being included on the working group mailing list?

- Yes
- No

e-mail if answering yes