
Greenhouse Gas Protocol guidance on carbon removals and land use

Project Overview and Terms of Reference for Participants

1. Project Overview

The Greenhouse Gas Protocol (GHG Protocol) is a multi-stakeholder partnership of businesses, non-governmental organizations (NGOs), governments, and others convened by the World Resources Institute (WRI) and the World Business Council for Sustainable Development (WBCSD). Launched in 1998, the mission of the GHG Protocol is to develop internationally accepted greenhouse gas (GHG) accounting and reporting standards and tools, and to promote their adoption in order to achieve a low emissions economy worldwide.

The Greenhouse Gas Protocol is launching a process to develop new standards or guidance on how companies should account for the following activities in their greenhouse gas inventories:

- Carbon removals and sequestration
- Land use
- Land use change
- Bioenergy
- Related topics

The project will develop internationally accepted standards or guidance on corporate GHG accounting on the above topics. New standards or guidance are expected to be used by companies to:

- **Inform mitigation strategies** by understanding the GHG emissions/removals impacts of land use, land use change, bioenergy and carbon removal activities
- **Set targets and track performance** by including the above activities in GHG targets
- **Report** GHG inventories including GHG emissions and carbon removals and report progress toward GHG mitigation goals

The new standards/guidance will be designed to create more consistency and transparency in the way companies quantify and report GHG emissions and removals from land use, land use change, bioenergy and carbon removal technologies and track progress toward GHG mitigation goals, following a credible approach. The guidance will be developed through an inclusive, multi-stakeholder process and will build on existing methods and approaches.

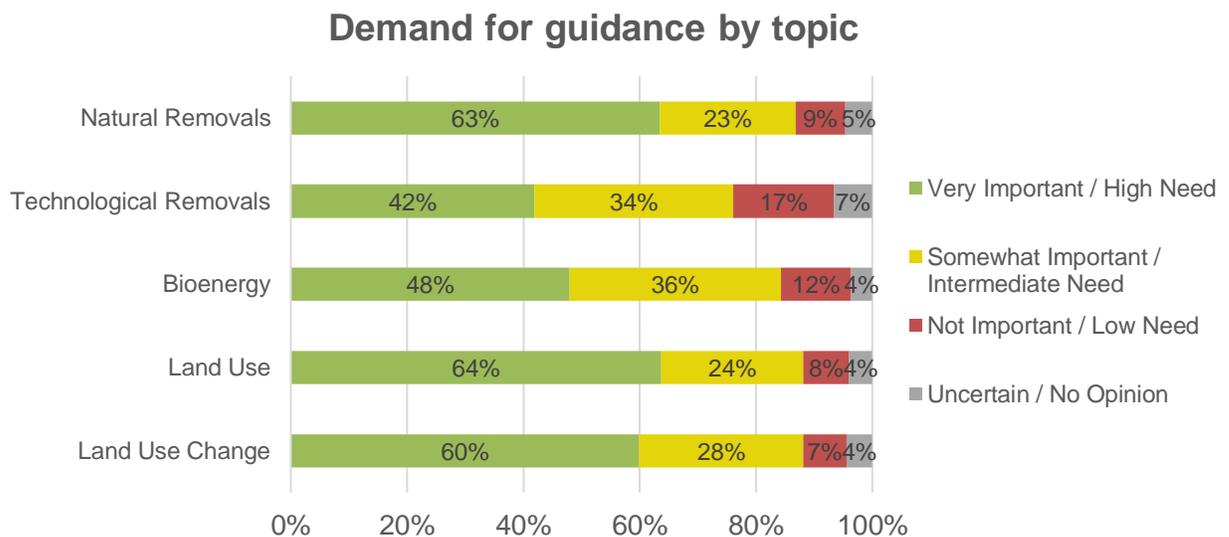
The new standards/guidance are also likely to be adopted by key programs and initiatives such as the Science Based Targets Initiative.

2. Summary of Survey Findings

In early 2019 WRI developed a survey to assess the demand for additional Greenhouse Gas Protocol guidance on carbon removals (natural and technological), bioenergy, land use and land use change. The survey was distributed online and ran from January to April 2019. A total of 417 individuals responded to the survey from businesses, governments, NGOs, academic/research institutions and consultants across over 50 countries.

Key Findings

1) There was strong demand across survey respondents for guidance in all areas identified

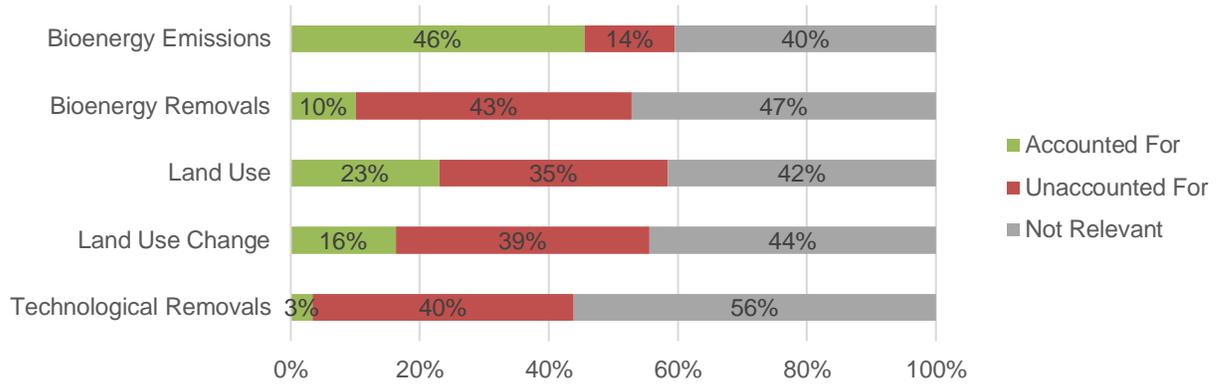


More than three quarters of survey respondents identified new guidance on each topic as being important (either very important or somewhat important):

- Natural carbon removals (86%)
- Technological carbon removals (76%)
- Bioenergy (84%)
- Land use (88%)
- Land use change (88%)

2) Few companies currently account for land sector emissions and removals, even when relevant

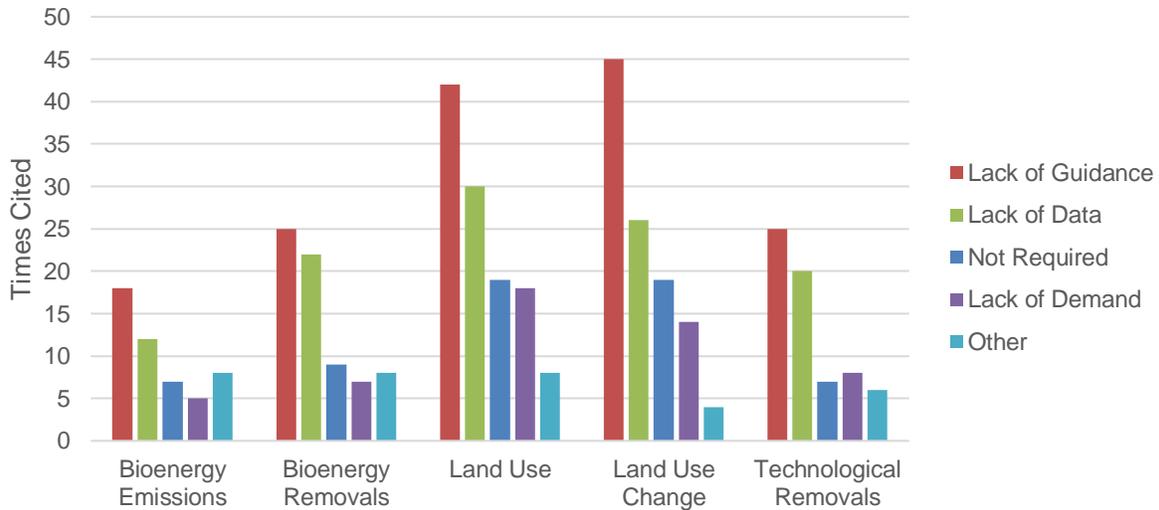
Share of respondents with GHG inventories accounting for each activity



Emissions and removals from bioenergy, land use and land use change are relevant for more than half of respondents with GHG inventories (n=178), yet few companies account for bioenergy removals, land use and land use change. Very few companies are currently accounting for technological removals (e.g., carbon capture and storage) but 76% of stakeholders still identified a need for new guidance in this area.

3) Lack of guidance was the most common reason respondents cited for why they were not accounting for activities, where such activities were relevant

Reasons cited for not accounting for a category



3. Proposed Scope

We propose to develop two documents:

1) Carbon Removals Standard/Guidance

- An amendment or supplement to the GHG Protocol corporate standards
- Applicability: Cross-sectoral

2) Land Sector Guidance

- Corporate-level guidance on accounting and reporting for greenhouse gas emissions and removals from agriculture, forestry, other land use, land use change, and bioenergy
- Applicability: Sector-specific

4. Draft List of Topics to Address

Carbon Removals Standard/Guidance

- Defining terms and concepts
 - Carbon removals (from the atmosphere) vs. carbon storage in pools/reservoirs (i.e. sequestration)
 - Carbon removal enhancements vs. avoided emissions or reduced emissions
 - Carbon removals occurring in the company's value chain vs. carbon removals occurring outside of the value chain
- Types of carbon removals and sequestration
 - Natural carbon removals and storage (e.g., afforestation, reforestation, forest restoration, urban tree planting, agroforestry, building soil carbon, etc.)
 - Technological carbon removals and storage (e.g., carbon capture and storage, direct air capture, enhanced weathering/mineralization, etc.)
- Accounting methods for removals and sequestration across scopes 1, 2 and 3
 - Carbon removals or carbon fluxes (changes in carbon stocks) vs. sequestration in sinks/pools (carbon storage)
 - Accounting for removals and sequestration over time
 - Allocating removals across companies and scopes
 - Ensuring long-term storage of natural and technological removals/sequestration, including monitoring and verification
- Quantification methods and data sources
 - Identification of relevant tools, methodologies/protocols, datasets, etc.
- Reporting
 - Separate reporting of emissions and removals vs. reporting net GHG impacts
 - How to report removals across the value chain (e.g., whether to establish scope 1 removals, scope 2 removals, scope 3 removals)
 - Separate reporting of removals vs. carbon storage/sequestration
 - Separate reporting of carbon removals outside of the scopes (i.e., purchased from/sold to other companies, or interventions with impacts outside the value chain)
- Target setting and tracking changes over time

- Setting targets that cover removals
- Setting a base year and recalculating base year emissions and removals
- Setting separate targets for emissions and removals
- Role of removals in achieving net zero targets
- Tracking removal enhancements within an inventory
- Mitigation strategies/actions to enhance removals
- Alignment with or revisions to other GHG Protocol standards

Land Sector Guidance

- Types of emissions, removals and sequestration within the land sector
 - Carbon emissions and removals from land use (e.g., forest management, crop and livestock production, bioenergy feedstock production, soil carbon, etc.)
 - Carbon emissions and removals from land use change (e.g., deforestation, afforestation, wetland conversion, etc.)
 - Agricultural GHG emissions (e.g., livestock methane emissions, soil nitrous oxide emissions, etc.)
 - Biogenic carbon dioxide emissions and removals from bioenergy production and consumption (e.g., biomass, biofuels, biogas)
- Land sector accounting approaches
 - Scope 1 accounting (e.g., for farmers, ranchers, timber/forest management companies, bioenergy feedstock producers, land managers/owners, etc.)
 - Scope 2 accounting (e.g., for bioenergy-sourced electricity consumption)
 - Scope 3 accounting (e.g., for food and beverage companies, forest product companies, apparel companies, retailers, finance/investors, etc.)
 - Direct and indirect land use change and related impacts from changes in production
 - Use of land-based vs. activity-based accounting methods
 - Addressing the timing of removals and emissions
 - Aligning bioenergy accounting approaches with land sector accounting approaches
 - Separate biogenic carbon emissions and removals accounting
- Quantification methods and data sources
 - Methods across carbon pools (i.e., biomass carbon, dead organic carbon, soil organic carbon, carbon storage in bio-based products/materials)
 - Use of primary (monitored) data vs. secondary (estimated) data and modeling approaches
 - Data collection based on the company's location within the value chain (e.g., land managers, processors and retailers)
 - Data approaches depending on whether there is data traceability
 - Estimating and managing uncertainty in data, methods and models
- Reporting requirements for the land sector
 - Reporting emissions and removals across scopes (i.e., scope 1, 2 and 3)
 - Separate reporting of fossil versus biogenic carbon
 - Whether and how to report avoided emissions (e.g., in a bioenergy life cycle)

- How to report purchases or sales of credits/certificates
- Target setting and tracking changes over time
 - Setting targets that cover land sector activities
 - Setting a base year and recalculating base year emissions and removals
 - Identifying land sector mitigation strategies and interventions
 - Role of bioenergy and land use removals in achieving GHG targets
- Alignment with or revisions to other GHG Protocol standards and guidance
 - Agriculture Guidance (e.g., livestock emissions, emissions from manure management, soil emissions, biomass burning), Corporate Standard, Scope 3 Standard, Scope 2 Guidance, Product Standard
- Relationship of corporate land sector accounting to other programs and initiatives
 - Jurisdictional accounting initiatives (i.e., national GHG inventories, REDD+ programs)
 - Project-based accounting initiatives (i.e., Agriculture Forestry and Other Land Use (AFOLU) sector offset/inset projects, C removal certificates)
 - Sustainability certification (i.e., sustainable agriculture, green gas certificates, apparel and forestry standards)

5. Approach

Key elements of the Greenhouse Gas Protocol approach include:

- **Develop standards/guidance through a global, inclusive, multi-stakeholder process** in partnership with companies, government agencies, NGOs, and other experts and stakeholders from around the world. GHG Protocol has twenty years of experience convening global stakeholders to develop consensus GHG accounting methodologies. The GHG Protocol will follow the same type of global, inclusive, and open multi-stakeholder process used to develop the *GHG Protocol Corporate Standard (2004)*, the *GHG Protocol for Project Accounting (2005)*, the *Corporate Value Chain (Scope 3) Standard (2011)*, and the *Product Life Cycle Standard (2011)*.
- **Build on existing approaches**, such as the IPCC guidelines for national GHG inventories, GHG Protocol *Agricultural Guidance* and *LULUCF Guidance for Project Accounting*, ISO 14064-1:2018, Quantis' *Accounting for Natural Climate Solutions* guidance, Gold Standard Value Change Initiative's *Value Chain (Scope 3) Intervention Guidance* and *Guidance for Soil Organic Carbon*, GHG Protocol Brazil Forestry tool, REDD+ programs and other jurisdiction land sector approaches, CDM and voluntary AFOLU sector project methodologies and other methods and reports recommended by participants in the scoping process.
- **Pilot test draft standards/guidance** by a set of companies to gain real-world feedback on the practicality and usefulness of draft standards/guidance and ensure that the final standards/guidance are well-suited to their needs.
- **Ensure rigorous and user-friendly technical design** to ensure a true and fair account of emissions, removals and sequestration and provide comprehensive guidance for land sector accounting aligned with international best practices. The standards/guidance will be based on key GHG accounting principles (relevance, accuracy, completeness, consistency, and transparency).

6. Governance Process

WRI and WBCSD will convene a series of stakeholder groups as part of the global, inclusive, multi-stakeholder standard/guidance development process. The stakeholder groups will be balanced by including participation from diverse geographies and include a range of government, business, and civil society participants. All outputs will be subject to comprehensive review by any interested stakeholders.

The governance process to oversee and develop the new standards/guidance will consist of five groups:

- Secretariat
- Advisory Committee
- Technical Working Group(s)
- Review Group
- Pilot Testing Group

Summary of responsibilities and expected commitment of each stakeholder group

| Group | Responsibilities | Commitment |
|------------------------------------|--|---|
| Secretariat (WRI and WBCSD) | Convene, facilitate, and oversee process | The Secretariat will consist of 3.5 FTE staff dedicated to this initiative |
| Advisory committee | Provide strategic guidance on the goals and direction of the project | Participate in 1 in-person meeting per year and 2-3 conference calls per year |
| Technical working group(s) | Develop the technical content of the standards/guidance | Participate in biweekly conference calls between approximately November 2019 and May 2020 (unless fewer calls are necessary); with possibility of 1 in-person meeting per year; and the necessary time to prepare and review materials (approx. 5-10 hours per month) |
| Review group | Review and provide feedback on draft standards/guidance as they are produced through the working group process | At the discretion of the participant, review and provide written comments on draft standards/guidance twice during the process (once in 2020 and once in 2021) |
| Pilot testing group | Implement the draft standards/guidance and provide feedback for their improvement | Implement the draft standards/guidance over 6 months in the second half of 2020. Provide feedback on the strengths and weaknesses of the draft standards/guidance. Generate case studies to be included in the final publication(s). |

See below for additional details on the composition, responsibilities, decision making process, commitment and acknowledgement for each of the groups.

1. Secretariat

WRI and WBCSD will convene and facilitate the guidance development process and act as the secretariat.

Responsibilities

- Convene participants
- Raise funds to support the process
- Facilitate and coordinate meetings of the advisory committee, technical working groups, and stakeholder workshops
- Draft written inputs into the advisory committee and technical working group process, including background on relevant standards and methodologies, accounting issues and challenges, and key decisions to be made by each group
- Draft sections of the standards/guidance
- Recruit pilot testers and manage pilot testing
- Ensure consistency and user-friendly presentation in the final standards across all sections developed by the technical working groups
- Produce final publications taking into account feedback received to ensure the highest quality

2. Advisory Committee

The Advisory Committee will provide strategic guidance on the goals and direction of the project.

Composition

The Advisory Committee will consist of 10-20 strategic and technical advisors with expertise in GHG accounting and reporting related to carbon removals and sequestration and land sector accounting (i.e., agriculture, forestry, other land use, land use change and bioenergy expertise). Participation in the Advisory Committee is by invitation only.

Responsibilities

1) Strategic guidance

- Provide advice on the objectives and scope of the standards/guidance
- Provide advice and guidance on objectives and composition of working groups and ensure that working group outputs are consistent with established objectives
- Provide guidance on the topics to be addressed by the technical working groups
- Support broad adoption and use of the standards/guidance by companies, GHG reporting and target setting programs/initiatives, governments, financial institutions, and civil society

2) Technical and policy guidance

- Recommend solutions to major technical or policy disagreements or questions when the technical working groups are unable to reach consensus and/or provide solutions (e.g., technical questions include what types of methods are available, while policy questions include what types of methods should be required or optional.).

3) Standards/guidance review

- Review draft standards/guidance from the technical working groups for relevance, accuracy, consistency, and completeness.

Decision Making Process

Members of the Advisory Committee will provide inputs and recommendations on key questions. In cases where the Advisory Committee is unable to reach consensus recommendations, the Secretariat retains the authority to make a final decision, guided by the majority viewpoint.

Commitment

Advisory Committee members are requested to make a two-year commitment to participate in the standards/guidance development process (i.e., November 2019 – late 2021). This is expected to involve:

- 1 in-person meeting per year (for two years)
- 2-3 conference calls per year (for two years)

Acknowledgement

Members of the Advisory Committee will be acknowledged as such and listed by name and affiliation in the final publication.

3. Technical Working Group(s)

Members of the technical working group(s) will develop the technical content of the standards/guidance. The number of technical working groups is to be determined.

Composition

Each technical working group(s) will consist of about 15-20 experts from business, government, academia, and NGOs with technical backgrounds in quantifying carbon removals and sequestration and land sector accounting (i.e., agriculture, forestry, other land use, land use change and bioenergy expertise). A Secretariat staff member will be designated as a facilitator for each group.

Responsibilities

- For the set of technical accounting issues designated to the group: review relevant existing methodologies and practices; analyze the issues and challenges; and develop recommendations around content of standards/guidance
- Draft sections of text on the designated topics and review draft text at frequent intervals
- Receive and respond to feedback on draft chapters from the Advisory Committee, the Review Group, the pilot testing phase, and public comment periods

Decision-Making Process

Technical Working Groups will strive to reach consensus recommendations on each aspect of the standards/guidance. If the Technical Working Group is unable to reach a consensus, the group will provide the Advisory Committee with a set of options for review and recommendation, indicating the relevant advantages and disadvantages of each option. In cases where the Advisory Committee is unable to reach a consensus, the Secretariat retains the authority to make a final decision, guided by the majority viewpoint.

Commitment

Technical working group members are requested to make a two-year commitment to participate in the standards and guidance development (i.e., November 2019 – late 2021). This is expected to involve:

- 2 conference calls per month from approx. November 2019 – May 2020 (unless fewer calls are necessary), with optional participation in additional conference calls in sub-groups as needed
- Occasional calls between mid-2020 and mid-2021 as needed
- 1-2 in-person meetings (TBC)
- The necessary time to prepare and review materials (approx. 5-10 hours per month)

Acknowledgement

Members of the Technical Working Groups will be acknowledged as Technical Working Group Members and listed by name and affiliation in the final publication.

4. Review Group

The review group will provide feedback on the draft standards/guidance as they are produced through the working group process.

Composition

The group will consist of any interested stakeholders from government, business, NGOs, academia, etc.

Responsibilities

At the discretion of the individual participant, provide written feedback on draft standards/guidance once per year. Comments from the Review Group will be incorporated at the discretion of the Technical Working Groups, Advisory Committee members, and the Secretariat.

Commitment

Receive draft guidance at two intervals: once in 2020 (first draft) and once in 2021 (final draft). Provide written feedback at the discretion of the individual participant.

Acknowledgement

Stakeholders who submit comments as part of the Review Group will be acknowledged and recognized as Reviewers and listed by name and affiliation in the final publication.

5. Pilot Testing Group

After the draft standards/guidance are prepared, a select group of companies and organizations will have an opportunity to test the draft standards/guidance to ensure that they can be practically implemented, provide any feedback for their improvement, and serve as important case studies in the final publications. The Secretariat will provide technical support to pilot testers in implementing the draft standards/guidance. Feedback from the pilot testing will be incorporated into the final version of the standards/guidance.

Composition

The group will consist of selected organizations representing a diversity of sectors and geographic locations.

Responsibilities

Implement the draft standards/guidance in late 2020. The expected length of testing phase is 6 months. Provide detailed, constructive feedback on the strengths and weaknesses of the draft standards/guidance. Generate case studies to be included in the final publication(s).

Commitment

Commit to testing and implementing the draft standards/guidance, providing feedback through a questionnaire, and developing a case study.

Acknowledgement

Pilot testers will be recognized as Pilot Testers and listed by affiliation in the final publication.

7. Draft Timeline (subject to change)

| Activities | 2019 | | | | 2020 | | | | 2021 | | | |
|---|------|----|----|----|------|----|----|----|------|----|----|----|
| | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 |
| Scoping assessment | | | | | | | | | | | | |
| Conduct survey & consultations on need and scope; research existing methods | ■ | ■ | ■ | | | | | | | | | |
| Standards/guidance development process | | | | | | | | | | | | |
| Convene stakeholder groups | | | | ■ | | | | | | | | |
| Develop first drafts | | | | ■ | ■ | ■ | | | | | | |
| Stakeholder review | | | | | | | ■ | | | | | |
| Develop second drafts | | | | | | | ■ | | | | | |
| Pilot testing | | | | | | | | ■ | ■ | | | |
| Develop third drafts | | | | | | | | | | ■ | | |
| Stakeholder review | | | | | | | | | | ■ | ■ | |
| Publish final standards/guidance | | | | | | | | | | | | ■ |

8. Expression of Interest

The Greenhouse Gas Protocol is an open, inclusive, multi-stakeholder process that depends on the active participation of stakeholders to ensure the success and broad adoption of its standards.

Stakeholders have three options for participating in the development process:

- Technical Working Group
- Review Group
- Pilot Testing Group

See the “Governance Process” section above for roles and responsibilities of each group. Note that the Review Group will not be active until mid-2020 when a first draft is ready, and the Pilot Testing Group will not be active until mid/late 2020 when a pilot draft is ready. There will be future opportunities to join both the Review Group and Pilot Testing Group.

If you are interested in participating in the development process, please fill out the online expression of interest form by **29 October 2019** with the following information:

- Name
- Organization
- If a company, what sector
- Country
- Email address
- Interest to join the:
 - Technical Working Group
 - Review Group
 - Receive updates only
- If interested to join Technical Working Group, which topics are of most interest?
 - Carbon removals/sequestration (applicable across sectors)
 - Land use and land use change (including agriculture and forestry)
 - Bioenergy
- Brief description of your interest and experience/expertise in these topic areas

Please note that the Secretariat may need to adjust the overall size and composition of the various groups to ensure that each group has balanced representation from stakeholders (by organization type, sector, and geography).

If you any have questions, please contact Matt Ramlow at Matt.Ramlow@wri.org or 1-202-729-7780.