

INTRODUCTION

Filmmakers historically have played an important role in raising critical issues for society, including environmental threats from climate change and overexploitation of resources. Increasingly, filmmakers have adopted pro-environmental practices in their own production. This code provides tools for filmmakers to measure whether their practices are as sustainable as they can be throughout the production process. Accompanying online checklists, trackers, and Web resources provide a summary of current approaches that implement that rationale.

We realize that this is only the beginning of doing business differently than the way we did it in the past. Currently most producers, broadcasters, and distributors do not acknowledge the true costs of environmental impact that arise from producing and distributing films. Nor is there yet an independent certification process, or board, for our profession as there are for other industries and professions. However, we believe that articulating current best practices and helping those in our field better estimate how our actions impact environment and climate are sound beginnings to a much larger discussion in, and beyond, our profession.

Inevitably, filmmakers create carbon debt with our work. However, as in other industry sectors, we can take action immediately to reduce consumption and waste in our profession; to educate peers, employees and interns; and to support policies that register the true environmental costs of production.

HOW THIS CODE WAS CREATED

This code is based on the results of a global survey of best practices in sustainable filmmaking, conducted by American University, involving more than 175 filmmakers and companies. The survey was aided by national and international filmmaking organizations, including Filmmakers for Conservation, the International Documentary Association, Real Screen, Women in Film and Video (D.C. Chapter), and the Producers Guild of America. In addition, author Larry Engel, assisted by faculty and students, conducted a number of interviews with leaders in the field and surveyed the Web. Finally, author Andrew Buchanan consulted a range of experts and also checked numerous Web sites covering sustainability and film and television production.

The code and associated materials were reviewed for scientific validity by experts in the field of climate change, carbon reduction, and sustainability (see Scientific Review Board, p. 13). In addition, filmmakers from around the world reviewed it to ensure the information was both clear and relevant.

BEST PRACTICES

The premise governing the *Code of Best Practices in Sustainable Filmmaking* is to minimize the amount of resources used and carbon created—the current critical measure for climate change—in producing our own work. Therefore, we honor that premise by limiting print production of this code and by using the Web to distribute it, provide additional information, update documents, and encourage interaction. Our goal is to reduce the load we place on the planet and reach carbon neutrality—that is, to add no new carbon into the environment—both by decreasing our energy and materials consumption and by offsetting that which cannot be eliminated—that is, by funding entities or projects that add no carbon into the atmosphere, or what is commonly called “carbon offsetting.” To do this in part, we need to calculate our carbon footprint—a measure of how much carbon is produced throughout a project’s life or a company’s work.

In addition we should also work to calculate and reduce our ecological footprint—a broader measure of how our activities use and affect the planet’s environment and its resources. This footprint is a newer one than the carbon footprint and while gaining more attention in the scientific community, it is not yet fully established as a working tool. (We expect to include this measure online, when available and reviewed by our advisory board.)

ONE: CALCULATION

PRINCIPLE: Know how much energy we are actually using.

We can do this by calculating to the greatest extent feasible actual energy inputs, even when they are underpriced or not recognized in the market, throughout the production process.

Our best tool for long-term planning is good baseline information. We need to know how much carbon we are adding to the atmosphere to be able to measure success in reducing it. Therefore, good information on carbon costs, transparently

shared with colleagues, employees, and trainees, is critical. Even if we cannot act immediately to reduce our carbon costs, we should identify them in developing our calculations and budgets.

LIMITATIONS: We often lack good tools to do these calculations. The science of calculating carbon costs is still emerging, and today's carbon and environmental trackers are in a constant state of evolution and refinement. Further, much of our work is done under contract to companies or clients with budgeting guidelines that do not acknowledge real energy inputs. Even when we cannot observe this principle, we should do our best to educate our colleagues about the production and accounting practices we think are the most helpful and responsible. Finally, many of our suppliers are not ready for carbon calculations. They need to know that we regard this as a high priority, and that we will choose alternatives if available. (See *How to Use Carbon Trackers*, pp. 10–12, and for a partial list of carbon calculators, see *Web Resources* online.*)

TWO: CONSUMPTION

PRINCIPLE: Lower overall carbon debt and environmental impact by using less.

We can reduce consumption throughout the production process, from using re-useable water containers to buying in bulk to choosing minimalist packaging. We can build conservation into every production decision we make. We can involve our teams more firmly by incorporating their own best suggestions for minimizing waste, re-using and recycling material, and producing with sustainability as a core objective. (See *Checklists*, pp. 6–9, and add to checklists online.*)

LIMITATIONS: We are in a high-tech profession with fast obsolescence. Sometimes we need to invest in technology that is carbon-expensive in order to do the best work possible or work that our clients demand.

It can be difficult to identify the most responsible conservation practices and to balance priorities. For instance, to minimize recycling it may be wisest to use shared food containers; from a health perspective, it may be wisest to have individual containers.

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(And sometimes we can find new solutions, for instance requiring our staff to carry re-useable water bottles and dishes marked with their own names.)

To be effective, sometimes our work requires carbon-expensive choices such as glossy posters or eye-catching press kits. We need to understand those choices as carbon-expensive ones, while also understanding the requirements of our businesses.

THREE: TRAVEL

PRINCIPLE: Reduce the carbon debt created through travel.

We can minimize and consolidate travel at every step in the production process, from trips to the supplies store to carpooling on the shoot to Internet conferencing in lieu of appearances at nonessential festivals. We can make travel costs a central feature of carbon-planning throughout our work process—for instance in deciding to hire locally, seek alternatives to jet travel, carpool or use mass transportation. (See Checklists, pp. 6–9, and add to checklists online.*)

LIMITATIONS: The terms of our work often require face-to-face interactions, and we are (with luck) sometimes faced with a carbon-expensive choice, such as a transcontinental trip to pick up an award. We need to see these choices as the choices they are and to ensure that we make them only when we see them as critical to the health of our work.

FOUR: COMPENSATION

PRINCIPLE: Since we cannot completely eliminate our footprint, we should compensate for it through organizations that offer a carbon reduction equal to our carbon production.

We can use carbon offsets (the chance to pay for an action by someone else that reduces the world's carbon footprint) as a last resort, after minimizing inputs everywhere possible. Carbon offsets are an important feature of becoming carbon neutral, since we inevitably produce a carbon footprint, however small.

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LIMITATIONS: Many companies offer carbon offsets without proof of their reliability in delivering the reductions your money is supposed to buy. We should use reliable (Gold Standard) offsets that rely on acknowledged renewable-energy technologies, such as wind and solar. (For a partial list of carbon calculators and offsetters, see Web Resources online.*)

These four principles do not exhaust the range of ways that filmmakers can reduce their carbon footprints, the ways in which we can let our example serve as a model, or the ways in which we can touch others with our concern. They reflect the most common areas in which filmmakers today are reducing their carbon footprint and taking the initiative to behave responsibly in the face of the environmental challenge. Filmmakers are discovering daily new ways to make contributions to meeting that challenge. Please add to our efforts by visiting us online.*

TOOLS FOR SUSTAINABLE FILMMAKING

This part of the code presents three sets of tools that help filmmakers put the code's principles into action:

- Checklists provide actions needed to create a sustainability plan.
- Carbon trackers allow individuals to track production activities that use energy and produce carbon emission and are meant to be used in conjunction with Internet carbon calculators.
- Web resources include environmental and sustainability-related URLs, carbon calculator sites, and suggested carbon offsetters, including Gold Standard ones that are recommended by WWF–UK.

We have provided instructions on how to use checklists and trackers, along with some sample checklists. However, the files themselves are meant to be used electronically and therefore are not printed here in their entirety. Through comments and feedback, we look to regularly revise and improve them. Further, a FAQ section will complement the code on our Web sites.

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The checklists and trackers may be downloaded as Excel documents or PDFs and used offline on local computers. Web Resources may be downloaded as a PDF.

All tools may be viewed and downloaded online.*

CHECKLISTS

The idea behind the checklists is simple—to make it easier for you to assess and minimize your production’s impact on climate change.

Complete the Principles and Practices Checklist **first**.

1. The **Principles and Practices Checklist** contains sets of actions needed to create a comprehensive overall plan to cut emissions and resource use. **The entire checklist is on pp. 8–9 and online.***

Then choose one of two tracks: either the Basic Track or the Advanced Track.

- The Basic Checklist is meant for individual filmmakers and small production companies that are generally pressed for time.
- The Advanced Track is meant for those who have become comfortable working with the basic tools and for larger organizations where different people manage different parts of the process.

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Choose

Either the Basic Track

2. The **Basic Checklist** is a simple ‘one-stop’ set of actions to cut emissions and resource use. It combines elements of the 3 more detailed checklists in the Advanced Track.

Or the Advanced Track

3. The **Office and Preproduction Checklist**

4. The **Location Checklist**

5. The **Postproduction Checklist**

These three more detailed checklists consist of actions to cut emissions and resource use in the areas indicated by their names. They demand more time, but they allow more thorough and accurate information to be collected. For online documents, go to: sustainablefilmmaking.org

If you first choose the basic track, you may then decide for your next production to use the advanced checklists for your climate impact accounting.

Each item in the checklists has a “Yes” tick-box and a space for you to record what remedial actions you and your team are going to or did take.

Best practice is to do everything on the lists—but in the real world that’s a very big task. Don’t give up. Just do as much as you can, and try to do more on your next production.

Currently there’s no certification scheme for sustainable production. However, best practice is to have your efforts become “sustainable monitored,” so the checklists have an optional box for a reviewer to sign.

We are including all of the Principles and Practices Checklist as an example of what the online checklists look like.

PRINCIPLES & PRACTICES (Insert production or company name)

It is best practice to state your environmental principles and practices clearly. However some of the suggested actions in this checklist may be inappropriate for your particular circumstances. If this is the case, just use the ones that are appropriate and add further items if you need to.

+ ACTION

DETAILS OF MEASURES TAKEN

Write a clear environmental statement and communicate it to the team

Yes

Calculate the baseline energy and resource use for your company or project

Yes

Choose an energy supplier which provides electricity from 100% renewable sources

Yes

Commit to reducing, reusing and recycling in order to cut consumption

Yes

Provide training and support for staff and crew - including freelance and short contract staff

Yes

Select environmental 'champions' for each section or department

Yes

Check relevant environmental legislation

Yes

Create clear transport plan which aims to reduce travel

Yes

Create clear energy plan which cuts use of non-renewable energy

Yes

Create clear materials and supplies plan to reduce consumption

Yes

<p>Create clear waste plan which encourages reuse and recycling</p> <hr/> <p>Assess likely impact on people, habitats, wildlife and cultures</p> <p>Minimize impact on people, habitats, wildlife and cultures</p> <hr/> <p>Check environmental and social responsibility policies of suppliers, broadcasters and distributors</p> <hr/> <p>Choose a bank with high ethical standards</p> <hr/> <p>Where possible, choose crew and suppliers who work in a sustainable way</p> <hr/> <p>Reduce carbon footprint as far as possible</p> <hr/> <p>Calculate total CO2 emissions after all possible reduction measures</p> <hr/> <p>Offset CO2 emissions with Gold Standard provider</p> <hr/> <p>Get certificate for offset</p> <hr/> <p>Reduce environmental footprint as much as possible</p> <hr/> <p>Publicize and advertise your environmental efforts to clients and the general public</p>	<p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> Yes</p>	<hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/>
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HOW TO USE THE CARBON TRACKERS

If you're planning to assess and/or offset a production's carbon emissions, it's important that you know what they are. The carbon trackers provide a way to keep track of your activities that create CO₂.

We've provided two versions of the tracker. The first is a basic one for use by small productions or those short of time. The second is more advanced, and therefore more suitable for use by line producers and production managers on larger productions.

Once you have completed production, the figures collected in the tracker can be entered into an independent online calculator or one used by your chosen Gold Standard offset supplier. Alternatively, some offset providers might use your completed tracker as a basis from which they would do the calculations offline.

Best practice is to calculate the amount of emissions a planned production is likely to create; the tracker can help you do this. Then, when steps have been taken to reduce the emissions to the minimum, the tracker can again be used to assess the actual reduction of energy and resources used during the production's lifecycle.

At the moment, different offsetters have different online calculators. Many may not include all the elements included in the code's trackers, and all will have slightly different formats for inputting data. But whatever their format, an accurately completed code tracker should contain all the information you need to calculate your production's carbon footprint to an acceptable level of accuracy.

One important note: These spreadsheets only help you keep track of energy and carbon-related activities; they don't calculate your production's CO₂ emission activities. This calculation must be done via online carbon calculators (See Web Resources online.*). However, we are working to develop an online calculator specifically for television and film production.

Remember that doing even a few things to cut carbon emissions and resource use is better than doing nothing at all.

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The Basic Carbon Tracker is a spreadsheet for recording energy and resource use by small productions. A small sample is below.

The Advanced Carbon Tracker is a spreadsheet for more accurate recording of energy and resource use, suitable for larger or more complex productions.

PRODUCTION: (Insert production name)

TRAVEL AND TRANSPORT Please fill in details for **all** travel and transport used during all phases of the production.

The spreadsheet allows you to insert additional rows in the colored areas if you need them - but if you do add rows, you will need to check that any formulae and totals are working correctly.

Please show whether you're working in miles or kilometers Miles Kilometers

in lbs or kgs Lbs Kg

GROUND TRANSPORT

Cars Including daily commuting
 Vehicle size: Small = up to 1400cc / Medium = 1400cc to 2000cc / Large = over 2000cc

From	To	No of passengers	Daily miles/km	No of days	Total miles/km	S/M/L vehicle	Petrol / Diesel / Hybrid

Other transport including daily commuting, e.g., bus, train, motorcycle, scooter, bicycle, ferry, skidoo, quadbike

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WEB RESOURCES, INCLUDING CARBON CALCULATORS AND OFFSETTERS.

The list of Web sites provided on our Web site is not all-inclusive. Inclusion or exclusion does not mean that the Center for Social Media, the Center for Environmental Filmmaking, or Filmmakers for Conservation is endorsing or not endorsing a particular company or organization.

Comments? Questions? Please contact us online at sustainablefilmmaking.org

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Larry Engel is a documentary filmmaker with more than 30 years of experience that spans all seven continents. He is also a professor at American University's School of Communication in Washington, D.C.

Andrew Buchanan lives in Somerset, England, and has over 30 years of production experience across drama, film and documentary. He now specializes in popular wildlife and conservation programs for broadcast worldwide.

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PRODUCING ORGANIZATIONS

The Center for Social Media, led by Professor Patricia Aufderheide, showcases and analyzes media for social justice, civil society, and democracy, and the public environment that nurtures them. The center is a project of the School of Communication, led by Dean Larry Kirkman, at American University in Washington, D.C.

Filmmakers for Conservation, led by co-presidents Joe Yaggi and Tanya Petersen, is a membership-based not-for-profit that brings together a global community of people who work in or have an association with the film and television industries. FFC works to use the power of film and television to help conserve the natural world.

The Center for Environmental Filmmaking, led by Professor Chris Palmer, was founded on the belief that environmental and wildlife films are vitally important educational and political tools in the struggle to protect the environment. The center is a project of the School of Communication, led by Dean Larry Kirkman, at American University in Washington, D.C.

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Throughout the writing of this code, we worked to minimize the energy and resources used. The writing and research were done almost exclusively without paper, and travel was almost eliminated through use of VOIP telephones, e-mail and file-sharing. Since print copies have been held to a minimum, we hope that you will circulate this code electronically.

The CO₂ emissions created in the research, writing, and production of this code have been offset to Gold Standard. For full details, see sustainablefilmmaking.org.

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