GOING CARBON NEUTRAL:

A Guidance Document for Pursuing Carbon Neutrality within CARE

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Developed as part of the CARE & Carbon Workshop
Held 2-6 October 2007
Nairobi, Kenya
# Index

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acronyms</td>
<td>3</td>
</tr>
<tr>
<td>Executive Summary</td>
<td>4</td>
</tr>
<tr>
<td>Report Overview</td>
<td>5</td>
</tr>
<tr>
<td>SECTION ONE: A Roadmap for CARE</td>
<td>6</td>
</tr>
<tr>
<td>STEP 1: Establish and coordinate ‘green-teams’</td>
<td>6</td>
</tr>
<tr>
<td>STEP 2: Assess greenhouse gas emissions</td>
<td>7</td>
</tr>
<tr>
<td>STEP 3: Implement emissions reductions activities</td>
<td>8</td>
</tr>
<tr>
<td>STEP 4: Consider offsetting for neutrality</td>
<td>10</td>
</tr>
<tr>
<td>STEP 5: Refine calculations and continue investing in emissions reductions</td>
<td>12</td>
</tr>
<tr>
<td>SECTION TWO: A Dangerous Climate</td>
<td>12</td>
</tr>
<tr>
<td>2.1 Threats Posed by Climate Change</td>
<td>13</td>
</tr>
<tr>
<td>2.2 Policy Framework</td>
<td>14</td>
</tr>
<tr>
<td>SECTION THREE: NGOs Reducing Their Contributions to Climate Change</td>
<td>15</td>
</tr>
<tr>
<td>3.1 Motivations</td>
<td>16</td>
</tr>
<tr>
<td>3.2 Calculating the Carbon Footprint</td>
<td>18</td>
</tr>
<tr>
<td>3.2.1 What to include</td>
<td>18</td>
</tr>
<tr>
<td>3.2.2 Which calculator tool to use</td>
<td>19</td>
</tr>
<tr>
<td>3.3 Minimizing Emissions</td>
<td>21</td>
</tr>
<tr>
<td>3.3.1 Reducing emissions from air travel</td>
<td>21</td>
</tr>
<tr>
<td>3.3.2 Reducing emissions from land-based travel</td>
<td>23</td>
</tr>
<tr>
<td>3.3.3 Reducing emissions from electrical consumption</td>
<td>24</td>
</tr>
<tr>
<td>3.3.4 Reducing emissions from paper consumption</td>
<td>24</td>
</tr>
<tr>
<td>3.3.5 Reducing emissions by choosing renewable energy sources</td>
<td>25</td>
</tr>
<tr>
<td>3.3.6 Institutionalizing ‘green thinking’</td>
<td>25</td>
</tr>
<tr>
<td>3.3.7 Expanding the sphere of influence</td>
<td>26</td>
</tr>
<tr>
<td>SECTION FOUR: Offsetting Emissions</td>
<td>27</td>
</tr>
<tr>
<td>4.1 Getting to Neutral</td>
<td>28</td>
</tr>
<tr>
<td>4.2 Developing an Offset Strategy</td>
<td>28</td>
</tr>
<tr>
<td>4.2.1 Project accountability mechanisms</td>
<td>29</td>
</tr>
<tr>
<td>4.2.2 Certification and standards</td>
<td>30</td>
</tr>
<tr>
<td>4.2.3 Recommended providers</td>
<td>31</td>
</tr>
<tr>
<td>4.2.4 Pricing</td>
<td>31</td>
</tr>
<tr>
<td>4.2.5 Project types</td>
<td>32</td>
</tr>
<tr>
<td>4.2.6 Multiple benefits</td>
<td>34</td>
</tr>
<tr>
<td>4.3 Developing Offsets Internally</td>
<td>34</td>
</tr>
<tr>
<td>4.4. Budgeting for Neutrality</td>
<td>35</td>
</tr>
<tr>
<td>SECTION FIVE: Conclusions</td>
<td>36</td>
</tr>
<tr>
<td>Resources</td>
<td>39</td>
</tr>
<tr>
<td>Appendix 1: Sample Carbon Footprint Worksheet</td>
<td>38</td>
</tr>
<tr>
<td>Appendix 2: Offset Provider Chart</td>
<td>39</td>
</tr>
<tr>
<td>Appendix 3: Survey Questions</td>
<td>43</td>
</tr>
</tbody>
</table>
### Acronyms

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Full Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>CCBA</td>
<td>Climate, Community and Biodiversity Alliance</td>
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<tr>
<td>CCX</td>
<td>Chicago Climate Exchange</td>
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<td>CDM</td>
<td>Clean Development Mechanism (of the Kyoto Protocol)</td>
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<td>CELB</td>
<td>Center for Environmental Leadership in Business</td>
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<td>CI</td>
<td>Conservation International</td>
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<tr>
<td>CO₂</td>
<td>Carbon Dioxide</td>
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<tr>
<td>CO₂e</td>
<td>Carbon Dioxide Equivalent</td>
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<td>ETS</td>
<td>European Union Emissions Trading System</td>
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<td>FAO</td>
<td>United Nations Food and Agriculture Organization</td>
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<td>GGAS</td>
<td>New South Wales Greenhouse Gas Abatement Scheme</td>
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<td>GHGs</td>
<td>Greenhouse Gases</td>
</tr>
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<td>IPCC</td>
<td>International Panel on Climate Change</td>
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<td>IUCN</td>
<td>World Conservation Union</td>
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<td>JI</td>
<td>Joint Initiative (of the Kyoto Protocol)</td>
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<tr>
<td>NGO</td>
<td>Non-Governmental Organization</td>
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<td>UNFCCC</td>
<td>United Nations Framework Convention on Climate Change</td>
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<td>WRI</td>
<td>World Resources Institute</td>
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<td>WWF</td>
<td>World Wildlife Fund</td>
</tr>
</tbody>
</table>
Executive Summary

Human-related emissions of carbon dioxide (CO₂) and other greenhouse gases are triggering climate change. Many non-governmental organizations (NGOs), especially those concerned with environmental conservation, have long recognized the need to take direct action. Citing concerns about safeguarding institutional legitimacy and credibility, as well as a desire to “do the right thing,” many have sought to minimize their greenhouse gas emissions.

Participants of the October 2007 CARE & Carbon Workshop resolved to take immediate steps to minimize emissions and move towards and eventually achieve neutrality through multiple benefit offset projects. This report provides CARE with the information it needs to debate and develop appropriate internal emissions reductions strategies. As a non-profit organization, a leader in civil society, and an advocate for policy change, CARE faces a unique set of ethical and administrative challenges. Yet CARE’s stature also presents it with an exceptional opportunity to lead by example.

Some governments, major corporations and NGOs are already pursuing the goal of carbon neutrality by offsetting their reduced carbon footprints. However, critics see carbon offsets as the modern day equivalent of “indulgences” sold to absolve us of our climatic sins. They worry that carbon offsets may become the equivalent of SUV-for-tree swaps, giving consumers no motivation for changing unsustainable habits. This report challenges such pessimistic – and reductionist – points of view. By shifting the debate from whether to pursue carbon neutrality to practical details about how to develop an effective plan, CARE can encourage a response to inadequacies in the voluntary market based on prescriptions for reform rather than rejection. Indeed, by engaging with the voluntary market as a purchaser – as well as provider of carbon credits – CARE can strengthen carbon markets and broaden the distribution of offset-derived benefits to impoverished communities.

This study concludes with the following major resolutions of participants in the October 2007 CARE & Carbon Workshop:
1. CARE seeks to aggressively minimize its carbon footprint through win-win and cost neutral measures.
2. The savings from cost-saving neutrality measures should be reinvested in efforts to further reduce CARE’s carbon footprint.
3. CARE aims to offset remaining emissions through premium credits yielding multiple benefits for impoverished communities.
4. Achieving carbon neutrality within CARE may be best achieved through tailored reduction plans designed and implemented by individual field and country offices as well as CARE International Member headquarters and regional management units. Better-resourced entities can provide support to field and country offices, as needed.
Report Overview

This report reviews the process of ‘going carbon neutral’ from the standpoint of NGOs. It provides detailed commentary on the steps toward neutrality – including calculating the organizational emissions footprint, reducing emissions to the greatest extent possible, and purchasing offsets to attain a net zero or ‘neutral’ carbon footprint.

The first section of the report explores how CARE might embark on a path towards carbon neutrality. Drawing upon the experiences and aspirations of CARE Members and Country Offices, it suggests a practical five-step path toward neutrality. From creating a ‘green-team’ of committed individuals and calculating the carbon footprint down to emissions reductions and consideration of offsets, this section outlines the key elements of a carbon neutrality strategy.

The second section of this report demonstrates the urgency and importance of addressing climate change, highlighting the policy instruments for decreasing global greenhouse gas emissions. Distinguishing between voluntary and compliance-related carbon markets, this section provides a framework for exploring the diverse motivations of local governments, businesses, individuals and civil society organizations to pursue carbon neutrality.

The report’s third section examines the process of calculating and reducing the organizational carbon footprint through the experiences of environmental and development NGOs. It introduces the Greenhouse Gas Protocol as a tool for creating an emissions inventory – a register of the source and amount of all greenhouse gases discharged over a given period of time. It indicates some of the largest sources of greenhouse emissions for a range of NGOs. Next, it considers strategies for cutting back on carbon emissions and identifies some of the institutional innovations that NGOs have implemented to reduce their carbon footprints.

The report’s fourth section elaborates on the nature of carbon offsets, introduces some providers, and illustrates a variety of project types offered as carbon offsets. It details the accountability standards and ethical concerns that NGOs must consider before diverting funds to carbon offsets, specifically examining the paths traced by NGOs that have purchased carbon offsets. The experiences of NGOs in developing internal offsets (especially through multiple-benefit programs) are also discussed. Additionally, this portion

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Box A: Introduction to Key Terms

**Carbon Footprint:** The sum total of all direct and indirect greenhouse gas emissions associated with organizational activities, expressed in carbon dioxide equivalent (CO2e). The footprint is calculated by creating an emissions inventory – a register of the source and amount of all greenhouse gases discharged over a given period of time.

**Carbon Neutral:** Achieving a net zero carbon footprint through a combination of emissions reductions and purchase of carbon offsets. NGOs should seek to responsibly reduce emissions to the greatest extent possible before balancing the remaining emissions by purchasing offsets.

**Carbon Offset:** A measure to compensate for the release of greenhouse gases by storing or avoiding the emission of a set amount of carbon dioxide (usually expressed in metric tons) from the atmosphere to compensate for emissions by another party and/or in another location. Tradable offsets with a monetary value may also be referred to as carbon credits; one credit corresponds to one metric ton of carbon dioxide equivalent. Carbon offsets and credits must prove additionality: the project generating the credit would not have otherwise occurred (i.e. neither part of business as usual nor developed for regulatory compliance).

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1 Quotes and statements about specific organizations in this report are drawn from a survey and follow up phone interviews conducted by a consultant to CARE in July/August 2007. The survey questions are outlined in Appendix 2.
of the report asserts that NGOs must both develop an offset strategy and fund neutrality efforts in a manner that is both ethical and prioritizes their mission.

The fifth and final section reviews the conclusions of the report and encourages CARE and other NGOs to approach carbon neutrality, finding ways to improve the quality of the voluntary offsets market and to promote more sustainable organizational practices that consider the impacts of climate change on the poorest and most vulnerable people.

SECTION ONE: A Roadmap for CARE

CARE is especially concerned about climate change due to its disproportionate impacts on poor people. As a result, staff members in Africa, Asia, Europe, South America, and North America assert that CARE should take urgent steps to minimise its emissions. At the same time, staff want the way forward to be robust and to address ethical as well as substantive challenges. This section of the report suggests a roadmap for CARE that balances the requirements of its core mission with the impassioned desire of many staff to take responsibility for their emissions.

Based upon the experience of CARE Brasil and CARE Nederland, the roadmap toward carbon neutrality entails the following steps:

1. Establish and coordinate ‘green-teams’
2. Assess greenhouse gas emissions
3. Implement emissions reductions activities
4. Consider offsetting for neutrality
5. Refine calculations and continue investing in emissions reductions

STEP 1: Establish and coordinate ‘green-teams’

Once a CARE office has decided to pursue carbon neutrality, the decision must be communicated to all staff members. Individuals interested in joining the effort should then form a ‘green-team’ including staff from:

- Finance
- Information Technology
- Administration
- Procurement
- Programs
- External Relations

As the authorities on carbon neutrality efforts, the green-teams will lead their respective offices through the remaining four steps toward carbon neutrality.

Supporting the team: CARE’s green-teams currently rely on the creativity and goodwill of their members. However, the strength and effectiveness of these teams can be improved with greater institutional support by: allocating resources and staff time to their efforts, encouraging senior staff to champion the work and recommendations of the team, and coordinating team activities during the initial years of carbon neutrality planning and implementation.

Ideally, a full-time expert should be hired through CARE International to help these teams collect data, make informed decisions, work towards standards, track progress, and solve problems. Moreover, this in-house expert could coordinate the efforts of green-teams to

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2 A portion of total savings from emissions reductions could be allocated to fund this position.
create an economy-of-scale and, in so doing, reduce individual transaction costs. For example, developing new documentation standards (e.g. travel authorization forms that include details on mileage and mode of transport), while upgrading procurement and accounting systems to include carbon data would reduce the time and cost required to measure and monitor CARE’s carbon footprint.

**STEP 2: Assess greenhouse gas emissions**

Assessing organizational greenhouse gas emissions may seem daunting, but it took CARE Brasil only six weeks to calculate its footprint with assistance from Ecológica Assessoria. The footprint calculation included statistics on CARE Brasil’s consumption of water, energy, and paper, but international travel accounted for 40 percent of total 2006 emissions.

With only nine office staff, CARE Brasil is a small, flexible operation that quickly adopted no-cost emissions reductions practices. However, field offices engaged in humanitarian work may have more complex footprints; and spikes in air travel emissions may be anticipated in the wake of disasters. While emergency and rehabilitation programming accounts for roughly 29 percent of CARE-USA’s work worldwide, the decision not to participate in PL-480 food aid will significantly reduce carbon emissions associated with shipping food donations from USAID around the world.

Clark Efaw, CARE USA’s Program Officer for Knowledge Management and Publications, sees calculating the organization’s carbon footprint as an opportunity to "look not only at how our building and employees' activities result in carbon emissions, but to also take into account the effects of such things as:

- Our mail-based fundraising efforts
- Available local transport options and incentives
- The availability of green alternatives to current operations
- Supplies and practices
- The offsetting or exacerbating effects of programming
- The practical effects of CARE policies such as food aid
- GMO and pesticide policies and
- The feasibility of incorporating carbon accounting into our global impact measurement, DME and knowledge sharing practices."

**Box B: Carbon Footprint vs. Ecological Footprint**

An ecological footprint – as distinct from a carbon footprint – calculates the amount of biologically productive area necessary to produce the resources to sustain a certain lifestyle and absorb its waste. Carbon emissions make up about 50 percent of the ecological footprint for most citizens of fossil fuel-dependent economies. However, an ecological footprint is composed of five factors: human population, consumption of goods and services per person, footprint intensity, bioproductive area, and biodproductivity per hectare. While carbon neutrality may be achieved through emissions reductions and purchasing offsets proportional to the carbon footprint, “ecological neutrality” (referred to as ending overshoot) derives from a combination of footprint reduction efforts as well as measures to increase available biocapacity. For more information on ecological footprints, refer to the *Living Planet Report* published by World Wildlife Fund, Zoological Society of London, and Global Footprint Network, available online at: [www.footprintnetwork.org](http://www.footprintnetwork.org).

**Methodology:** CARE’s transparent use of the Greenhouse Gas Protocol, developed by WRI and WBCSD, as standard methodology would strengthen the organization’s credibility while setting an example for other NGOs. Balancing needs for capacity building, accuracy and credibility, it is recommended that:
CARE green-teams at Member Headquarters and Country Offices use the GHG Protocol to calculate their carbon footprints, with guidance from WRI guidance documents and worksheets;

- Emissions inventories and carbon footprints should be standardized for comparability across offices and programs; and
- Carbon footprints and reductions should be reviewed/verified by an external auditor.\(^3\)

Green-teams should attempt to create a complete emissions inventory to mitigate footprint growth in future years as a result of adding in previously omitted emissions categories. Likewise, more accurate and complete data sets will also reduce the possibility. At a basic minimum, CARE’s green-teams should calculate carbon footprints based upon emissions from:

- Fuel use in CARE vehicle fleets,
- Fuel use in CARE-owned generators,
- Natural gas combustion in CARE-owned boilers, heaters, etc.,
- Purchased electricity,
- Business travel by plane, train, bus, or non-company car,
- Paper use, and
- Employee commutes.

A worksheet for calculating the greenhouse gas emissions associated with these sources is available in Appendix 1 of this report. Nearly all of the data necessary to complete this worksheet should be available from purchase records, travel request authorizations, energy company bills, and employee feedback. The worksheet returns a final calculation of the carbon footprint measured in metric tons of CO\(_2\). Adhering to this measurement standard allows for comparability across CARE operations. However, this worksheet is provided to facilitate the last step in the footprint calculations process. A good emissions inventory will aggregate data in such a way that prime areas for reduction become readily apparent upon review – for example, an emissions inventory that tracks not only fuel consumption but fuel efficiency by vehicle.

**STEP 3: Implement emissions reductions activities**

Once green-teams have completed their respective emissions inventories and calculated their carbon footprints, they should set targets for reductions. These targets should be accompanied by concrete actions to reduce greenhouse gas emissions. Green-teams can begin by focusing on win-win solutions (that both reduce GHG emissions and save money) or cost neutral activities.\(^4\) Easily tracked savings (e.g. lower energy bills) could be reinvested in further reductions activities. Larger investments, such as videoconferencing systems, could be considered in light of cost-benefit analyses that take into account lifestyle, environmental and monetary costs of business travel. On this scale, the funds saved on airfare along with the benefits to the environment and the well-being of staff from forgoing travel are likely to outweigh the costs of purchasing and installing the videoconferencing technology.

The following table highlights some of the ways that CARE could cut direct and indirect emissions. A few require additional investments, but most would yield savings with no initial outlay.

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3 The California Climate Action Registry offers a list of certifiers and technical assistance providers serving as auditors and verifiers. Refer to: [http://www.climateregistry.org/SERVICEPROVIDERS](http://www.climateregistry.org/SERVICEPROVIDERS).

### Scope 1: Direct Emissions
- Purchase fuel-efficient vehicles wherever possible
- Perform regular vehicle maintenance, especially checking air filter and tires
- Reduce generator use as much as possible

### Scope 2: Indirect Emissions from Energy Consumption
- Upgrade to Energy Star appliances
- Change office lighting to compact fluorescent light bulbs
- Reduce heating and air conditioning – use plants as shade and insulation
- Use desk lamps rather than ceiling lights whenever possible
- Set computers to ‘sleep’ when idle
- Plug in all appliances to a power strip and switch off at the end of the day
- Install sustainable design features like motion sensors and timers for lighting
- Mount solar panels on the roof and/or purchase energy from a green supplier

### Scope 3: Other Indirect Emissions
- Provide staff with commuter subsidies for public transit
- Reward carpoolers with extra personal days
- Encourage telecommuting, web meetings, and videoconferencing
- Print half as many handouts for meetings and ask staff to share
- Publish reports online rather than in print
- Adopt a digital filing system for administrative and financial records
- Use soy-based inks for printing
- Print documents in draft mode, double-sided
- Include a reminder not to print emails unless necessary in the e-signature
- Switch to 80 percent post-consumer recycled content paper
- When air travel is necessary, try to schedule daytime flights

### Other Environmentally-Sound Practices
- Use ceramic cups instead of disposable coffee cups
- Reuse envelopes for internal business
- Use refillable pens and pencils
- Recycle and compost all office waste
- Put a weighted two-litre jug in the toilet tank to save 30,000 litres of water annually
- Use collected rainwater for landscape irrigation
- Support carbon-responsible goods and services from light bulbs (www.carbonfund.org) to search engines (www.greenbacksearch.com)

**Policy power:** CARE green-teams should develop guidelines and policies aimed at reducing their offices’ largest sources of emissions (e.g. air travel, paper use, vehicle fleets). While discrete actions may resolve individual emissions problems, policies and guidelines can have broader effects. Moreover, sharing useful policies between green-teams will also help CARE reduce its overall carbon footprint. Individual CARE offices can field-test new creative strategies such as carbon budgets for air travel to help staff discern which flights are truly necessary. If one office proves the efficacy of such a policy, it could encourage its adoption in other CARE offices.

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6 Studies by Nicola Stuber at the University of Reading show that aircraft contrails from nighttime flights contributed to substantially higher rates of warming in cloud-free conditions. Also see: “Don’t fly at night: Night flights give bigger boost to global warming” by Richard Fisher, published June 14, 2006 at: [http://environment.newscientist.com/article/mg19025564.900.html](http://environment.newscientist.com/article/mg19025564.900.html).
7 See [www.Earth911.com](http://www.Earth911.com) for information on recycling electronics, batteries, and other unusual items.
8 See The Toilet Tank Fix at [http://www.videojug.com/film/the-toilet-tank-trick](http://www.videojug.com/film/the-toilet-tank-trick) for a demonstration. Also, consider that pumping water from source areas to drier locations may consume a substantial amount of electricity, so saving water means saving energy.
**Sequence:** CARE Canada has discussed calculating its footprint for some time, but in advance of any calculations it formed an office green-team to pursue emissions reductions. The money saved as a result of the team’s reminders to turn off the bathroom lights and the like is reinvested in further greening initiatives – the most recent of which is a composting system for office coffee grounds and food waste. The green-team serves not only as a reminder of the ingenuity and conscientiousness of staff members, but also as a model of an alternative sequence.

CARE Canada’s green-team has followed an alternate path by pursuing common-sense emissions reductions before calculating its carbon footprint and reinvesting the economic gains from increased energy efficiency and conservation in further greening initiatives. Conventional sequencing, favoring footprint calculation before emissions reductions, suits businesses engaging in carbon trading and corporate social responsibility programs better than NGOs. Given the time constraints on efforts to halt climate change and the role of NGOs as advocates of the ecosystems and people affected by climate change, organizations like CARE must act without delay. The Nature Conservancy’s Zoe Kant urged fellow NGOs to “try to make reductions and then see what further reductions you can make.” “Do whatever you can as soon as possible,” she insisted, “action needs to happen now.” Moreover, the urgency of the climate crisis means that organizations must prioritize emissions reductions themselves over accolades for them. “Whether we get credit or not is immaterial,” said Kant.

**STEP 4: Consider offsetting for neutrality**

CARE’s green-teams will need to decide how to offset their reduced emissions in the most ethical manner possible. In order to make an informed decision, teams will have to consider:

- Cost,
- Donor constraints,
- Standards, and
- Prospects for ‘purchasing’ internally generated credits.

**Cost:** Purchasing offset credits need not be particularly expensive; they are available in some markets for approximately US$5 per ton. CARE Brasil found that unrestricted resources could comfortably cover offset costs. According to Markus Brose, “We have a much harder time paying for the maintenance of our only vehicle or covering our national travel.”

Other CARE Members and Country Offices may find it more difficult to determine where the money to buy offsets should come from. The simplest course of action is to categorize offsets as a fixed cost to be covered by unrestricted budgets. “If we are really committed to neutrality, then [paying for offsets] from the unrestricted budget would be reasonable,” says CARE’s Southern and West Africa Regional Climate Change Coordinator, Angie Dazé. Alternatively, specific line items or a percentage of overall expenses could be added to program budgets. Yet this raises practical and ethical questions about diverting program funds to pay for offsets. Will donors allow it? Is it the right thing to do? There are no quick or easy answers to these questions. For the time being, therefore, the best choice may be to cover offset costs from unrestricted budgets.

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9 Among businesses that intend to participate in carbon trading, the incentives for possessing a large initial footprint may influence their decision to postpone emissions reductions until after the footprint calculation. Likewise, firms wishing to demonstrate good corporate citizenship may wish to draw attention to the difference between their initial footprint and a later footprint reflecting emissions reductions.
Donor constraints: Opinions on funding carbon neutrality seem to be mixed among and within donor agencies. A representative of one agency expressed a belief that “NGOs should provide leadership” on strategies to mitigate climate change and said he might consider funding a neutrality line item within a project budget, so long as the associated activities were specifically defined. Another donor favored “the option of directly integrating the costs [of carbon neutrality] into the project budgets” yet noted that the agency has not yet gone so far as to provide additional funding for neutrality. An official from a different agency rejected the idea of donors providing support for neutrality, explaining: “there are many urgent issues that need to be addressed with regard to climate change and development and any additional funding we can get needs to be directed where it has the most impact in a poverty reduction perspective.” Two officials from a third agency disagreed over whether carbon neutrality itself had merit, but agreed on declining budgetary line items for offsets. In view of the ever-shifting tides of support for and criticism of carbon neutrality, it would do no harm for NGOs to revisit funding opportunities with donors on a project-by-project basis.

NGOs could try to gauge whether their funding agencies and development cooperation partners would consider supporting the costs of making individual projects carbon neutral. Donor agencies including DFID, CIDA, Norad and the European Commission have committed to pursue carbon neutrality for their own operations and/or conferences. Given their favorable disposition toward carbon neutrality, there seems a possibility that such donors might consider funding offsets as a percentage of project overhead or a budgetary line item.

Standards: If CARE decides to go carbon neutral, then credits purchased from other institutions should be certified as having met the widely recognized Gold Standard or Climate, Community and Biodiversity Standards. This would protect CARE from the moral and public relations risks associated with possibly purchasing carbon credits derived from projects that actually contributed to poverty or environmental degradation.

To achieve carbon neutrality in 2007, CARE Brasil purchased offsets from a broker. However, in coming years, it intends to purchase credits from the Social Carbon Fund it is developing in partnership with Cantor-Fitzgerald. As all projects in the Fund’s portfolio will have been vetted, and the Fund itself will be generating resources to implement poverty reduction projects, it may also be a reliable purveyor of high-quality credits.

Prospects for “purchasing” internally generated credits: There is a noteworthy alternative to purchasing credits from vendors. Simply put: CARE is not capitalizing on the carbon values of current or planned projects. Indeed, many projects (such as those promoting fuel-efficient stoves and sustainable agriculture/natural resource management) either entail reducing global GHG emissions or sequestering GHGs. These values can be converted into credits and sold to other entities… or to CARE itself.

Purchasing internally generated credits would, in every sense, be a real transaction. Money would change hands and credits would be retired. There are two major advantages to this approach. First, we would know that these credits are coming from reputable projects because we have control over their implementation. Second, we could establish internal protocols for due diligence that would reduce external validation costs. The net effect is that less money would go to middlemen and more could go directly back to community development. CARE could even create an investment fund to pool funds from offices seeking to offset their emissions, thus financing the development of creditable multiple-benefit projects.

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10 Based upon survey responses from six donor agencies to the question in Appendix 2.
This is the path that CARE Netherlands intends to follow. Like CARE Brasil, it has committed to going carbon neutral. “We want to offset the impact of climate change on the lives of the poor,” said van Til. Surveying the offerings of two Dutch offset providers, he observed that projects in developing countries did “not work with or on behalf of the people most affected by climate change.” Instead, the projects engaged with communities near parks and well-protected areas; and their objectives seemed to focus more on benefiting ecotourism than carbon sequestration. “If they have not the poorest as the focus of offset policies, then where else can we go?” van Til asked.

CARE Netherlands decided to explore how it could offset its emissions through CARE projects benefiting communities that are especially vulnerable to climate change. CARE country offices possess the expertise and maintain the relationships with government officials needed to implement successful offset projects. Their assessments of opportunities for pro-poor credit generation, coupled with the CCB Standards, will guide CARE Netherlands’ strategy for developing Agriculture, Forestry and other Land Use (AFoLU) projects. Such ventures “need very experienced people in the field to deal with these issues – but we have them, so that’s the good news,” said van Til. Partnerships with offset providers and businesses may be leveraged to pre-finance these projects. However, van Til anticipates the associated credits will earn a Gold rating from the CCBA and yield a premium on the voluntary carbon market. While van Til acknowledges that this venture may expose CARE Nederland to criticism, the opportunities to use existing carbon markets as a means to channel funds to the poorest communities most affected by climate change are too powerful to ignore.

Roelof van Til hopes that CARE Nederland’s efforts might serve as a model for other CARE members. “Our first concern at this moment is quality of work – not quantity,” he said. If CARE International centralizes funding, guarantees sustainability, develops private sector investment guidelines, and allows flexibility among CARE members and country offices, the projects could proliferate rapidly.

STEP 5: Refine calculations and continue investing in emissions reductions

The final step in CARE’s carbon neutrality strategy should be to create a “feedback loop” whereby savings from reductions are reinvested to:
- Refine its footprint calculations,
- Gather increasingly comprehensive emissions data, and
- Finance more investment in improved efficiency and further emissions reductions.

Envisioning the pursuit of carbon neutrality as a cyclical feedback loop rather than a linear agenda recognizes “going carbon neutral” as a long-term process. In this way, CARE green-teams will continually reevaluate their operations and further reduce emissions, thereby improving organizational sustainability and decreasing their reliance on offsets. All CARE staff should be involved in emissions reductions efforts, but CARE green-teams should drive this process, communicating progress through advocacy and outreach activities, such as the inclusion of footprint estimates and projected emissions reductions in annual reports.

SECTION TWO: A Dangerous Climate

CARE seeks “a world of hope, tolerance and social justice, where poverty has been overcome and people live in dignity and security.” Global warming, and the severe climatic variations associated with the phenomenon, may present the greatest threat in history to realizing this vision. Following a review of concepts, this section discusses:
- The significance of carbon emissions,
2.1 Threats Posed by Climate Change

An overwhelming majority of scientists agree that climate change is being triggered by an increase in atmospheric levels of carbon dioxide and other greenhouse gasses (GHGs) released by human activities such as fossil fuel combustion and land use changes (esp. deforestation). Global carbon dioxide emissions increased by 80 percent between 1970 and 2004. Average surface temperatures increased by an estimated 0.8º Celsius worldwide between 1900 and 2005, with nineteen of the hottest twenty years on record occurring since 1980.

The International Panel on Climate Change (IPCC) estimates that developed countries, accounting for only 20 percent of the world’s population, are responsible for 46 percent of global GHG emissions. It is, therefore, cruelly ironic that the world’s most impoverished people – especially those living in island nations and on marginal lands in Sub-Saharan Africa – have contributed least to the problem but are likely to pay the highest price. The IPCC now projects a 1.8º to 6.4º Celsius increase in mean global temperatures by 2100, with temperature gradients in Southern Africa and the Sahel expected to substantially exceed the worldwide average. The UN Food and Agriculture Organization (FAO) estimates that increased aridity in sub-Saharan Africa associated with global warming patterns will desiccate 50 to 90 million hectares, thereby drastically decreasing crop yields and potentially creating a massive – permanent – food crisis. Nearly 3 billion people are expected to suffer water shortages in the Middle East and India, while floods sweep Southeast Asia. And with little or no healthcare, sanitation, food surplus, or monetary savings, the world’s poor will suffer most.

Sea level rise is the most difficult of all climate change impacts to predict. What we do know is that major land-based ice sheets in Greenland and the Antarctic are melting, breaking up and sliding into the sea at a rate exponentially faster than any mainstream model has projected. Scientists are struggling to explain why. Meanwhile, inhabitants of Papua New Guinea’s Carteret atolls became the world’s first recognized climate change refugees, but millions of other Pacific Islanders from low-lying nations like Kiribati and Tuvalu will soon follow. Floods associated with more severe storms are also displacing people from their homes across the globe as water-borne diseases like malaria and cholera spread in their wake. Climatologists have linked these recent extreme weather events, including Atlantic hurricanes and flooding in Europe, with global temperature increases.

The natural world is also suffering the effects of climate change. Among other factors like habitat loss and pollution, scientists say climate change is contributing to a “sixth wave” of extinction with rates 100 to 1000 times normal levels. According to the World Conservation Union (IUCN), over 15,000 plant and animal species – including 32 percent of amphibians, 24 percent of mammals, 12 percent of birds, and 25 percent of conifers – are considered at high risk of extinction as a result of human activities. A recent study examining the potential effects of global warming on 25 tropical biodiversity hotspots estimates losses of up to 43 percent of endemic species in 100 years – including a staggering 9,000 species in one Andean hotspot. Terrestrial species may be easier to monitor, but climate change also threatens marine life. Rising sea temperatures and increasing oceanic acidity levels are

responsible for coral bleaching, decreased phytoplankton production, and shifting species compositions.

Many climate scientists assert that global GHG emissions must decline 80 percent by 2050 in order to avoid catastrophic climate change. Without such drastic reductions, feedback loops associated with decreased albedo, thawing permafrost, and irreversible melting of polar glaciers may increase the pace of global warming and trigger a runaway greenhouse effect. Limiting temperature increases to 2°C by stabilizing atmospheric concentrations of CO₂e at 450 parts per million (ppm) reduces the risk of triggering a runaway greenhouse effect to 3 percent, as opposed to a minimum 24 percent risk at 550ppm CO₂e stabilization rates. But with current atmospheric levels of CO₂e at 430ppm and rising, efforts to cap global CO₂e emissions at 450ppm would require a global commitment to an almost immediate emissions peak and 5 to 7 percent annual global emissions reductions – a scenario that seems all but unattainable given current consumption patterns, political wrangling and technological constraints.

2.2 Policy Framework

The United Nations Framework Convention on Climate Change (UNFCCC), adopted at the 1992 Rio Earth Summit, called on signatories to reduce GHG emissions in an effort “to prevent dangerous anthropogenic interference with the climate system.” The convention entered into force on March 21, 1994 with 191 countries having ratified the treaty, including the United States. While the UNFCCC set no mandatory limits on emissions or enforcement provisions, the treaty called for update protocols to fulfill this function. The Kyoto Protocol to the UNFCCC entered into force on February 16, 2005 with mandatory individual emissions targets for signatories with the aim of reducing collective GHG emissions to levels 5 percent less than 1990 levels by 2012. However, the US refusal to ratify the Kyoto Protocol has undermined its effectiveness.

The Kyoto Protocol recognizes six gases contributing to the greenhouse effect: carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. However, the global warming potential of each gas is different. For example, one molecule of sulfur hexafluoride has 22,200 times the global warming potential as one molecule of carbon dioxide. To simplify calculations, emissions reductions are expressed in terms of CO₂ equivalent (CO₂e). Article 17 of the Kyoto Protocol delineates the framework for a cap and trade system, which creates economic incentives for more aggressive emissions reductions. The emissions targets assigned under the protocol are calculated into

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13 If a 2°C limit seems conservative, consider that with a 3.6°C temperature increase all Arctic ice will disappear and 97% of coral reefs will die; the Amazon rainforest will disappear with a 5.4°C increase; and Australia will no longer be able to produce food if global temperatures rise 7.2°C or more. Refer to the DEFRA book “Avoiding Dangerous Climate Change” January 30, 2006. An executive summary available at: [http://www.defra.gov.uk/environment/climatechange/research/dangerous-cc/pdf/avoid-dangercc-execsumm.pdf](http://www.defra.gov.uk/environment/climatechange/research/dangerous-cc/pdf/avoid-dangercc-execsumm.pdf)

14 Refer to the scenarios in the Stern Review Report on the Economics of Climate Change released October 30, 2006 and available at: [http://www.hm-treasury.gov.uk/independent_reviews/stern_review_economics_climate_change/stern_review_report.cfm](http://www.hm-treasury.gov.uk/independent_reviews/stern_review_economics_climate_change/stern_review_report.cfm)

15 The Global Warming Potentials (GWPs) of these gases are as follows: CO₂ (carbon dioxide – GWP 1); CH₄ (methane – GWP 23); N₂O (Nitrous Oxide – GWP 296); HFCs (hydrofluorocarbons – GWP 1,300); PFCs (perfluorocarbons – GWP 5600); and SF₆ (sulfur hexafluoride – GWP 22,200).

the cap, but countries that have reduced their emissions below the assigned limits may trade
credits in units of CO₂e.

Article 12 of the Kyoto Protocol establishes two flexible mechanisms for compliance: the
Clean Development Mechanism (CDM) and the Joint Initiative (JI). Through these project-

Based mechanisms, countries may invest in certified emissions reductions elsewhere in
order to fulfill their emissions targets. The CDM and JI mechanisms traded 491 million metric
tons of CO₂e at a value of $5.398 billion in 2006. The European Union Emissions Trading
System (ETS) – established to assist EU nations in meeting their Kyoto directives –
comprised the most significant share of the compliance market in 2006, trading 1.101 billion
metric tons of CO₂e at a value of $24.357 billion. And although Australia has not ratified the
Kyoto Protocol, the New South Wales Greenhouse Gas Abatement Scheme (GGAS) traded
20 metric million tons of CO₂e at $225 million.

A second marketplace for carbon credits – the voluntary market – swelled by 200 percent in
2006, primarily due to businesses’ interest in corporate social responsibility measures and
adopting pre-compliance strategies. Another study confirmed this outlook, attributing
increased corporate participation in the voluntary market as a means to:

- Fulfilling internal greenhouse gas reduction targets,
- Gaining carbon market experience for use in policy discussions on climate change,
- Preparing for potential regulations, enhancing their brand and/or differentiating their
  products, and
- Attracting investors.

The Chicago Climate Exchange (CCX) and a multitude of retail offset providers constitute
the voluntary market. Together, they traded 23.7 million metric tons of CO₂e worth $91
million in 2006. While companies account for as much as 80 percent of carbon credit sales
in the voluntary market, retail providers also cater to individuals wishing to offset their
personal or household emissions – as well as NGOs and government agencies seeking to
offset emissions from operational activities, fundraisers, conferences, etc.

SECTION THREE: NGOs Reducing Their Contributions to Climate Change

In recent years, climate change has grown to become one of the most pressing issues
concerning international development and environmental NGOs. Given the urgency of
reducing global GHG emissions, many NGOs are already extending their climate change
programs beyond advocacy and adaptation to include GHG emissions reductions strategies.
Organizations usually pursue emissions reductions in three steps:

- Determining organizational motivations and goals for carbon reductions,
- Creating an emissions inventory and calculating the carbon footprint, and
- Developing and implementing a strategy to reduce emissions.

17 All figures on trading volumes and values in 2006 from “State of the Voluntary Carbon Markets
Available at: http://ecosystemmarketplace.com/documents/acrobat/StateoftheVoluntaryCarbonMarket
18July_Final.pdf.
18 ibid.
19 See “Offsetting Emissions: A Business Brief on the Voluntary Carbon Market” by Business for
Social Responsibility and Ecosystem Marketplace. Available at:
Ecosystem Marketplace and New Carbon Finance. Available at:
.pdf.
3.1 Motivations

As NGOs increasingly develop campaigns to mitigate climate change, create programs to help vulnerable communities adapt, and push for policy solutions, they are also reflecting on their own contributions to climate change. Efforts to tackle internal emissions reflect three trends in the NGO community:

- Growing awareness of climate change policy limitations,
- Improved advisory capacity on corporate emissions reductions, and
- An increasing sense of responsibility for the impacts of their own operations.

The experience of Conservation International (CI) reflects these trends. Michael Totten, Senior Director of CI’s Climate and Water program, observed that the Kyoto Protocol’s “target reductions by 2012 only amount to one percent of the reductions needed this century.” Meanwhile, Sonal Pandya, at CI’s Center for Environmental Leadership in Business (CELB) revealed how her organization’s work encouraging companies to adopt best practices spurred self-reflection. “We had to look at ourselves in the mirror,” she said. Convincing the leadership of their obligation to support internal emissions reductions is not too difficult at an organization like CI, which recognizes that, in Pandya’s words, “climate change is probably one of the most, if not the most, important issue to global society and biodiversity.” And so the conservation group formalized an existing internal grassroots initiative called Greening CI – an effort to minimize the environmental impacts of operations including surplus employee travel, energy consumption, and paper use – and purchased credits to offset its remaining emissions from carbon forestry projects and green power generation.

Depending upon their particular mission and areas of concern, NGOs may express their motivations for reducing emissions differently. Oxfam USA’s Katherine Daniels cited the need to “make sure our own house is in order” before the launch of a new climate change campaign as a factor motivating the “recognition of our responsibility to address climate change from an operational standpoint.” “And,” she added, “it is the right thing to do.” Like Daniels, representatives from an array of NGOs emphasized three factors motivating efforts to reduce their own emissions:

- A desire to engage on climate change at a policy level,
- The need to ‘walk the talk’ and follow their own advice, and
- A commitment to ‘do the right thing.’

Christian Aid reports first mentioned the impacts of climate change (specifically in terms of increased natural disasters) on the poor in the 1990s. With increasing awareness of the disproportionately disastrous impacts of climate change on poor people, Christian Aid’s pledged to reduce its own emissions wherever possible. Claire Shelley, Media and Communications Manager for Christian Aid Scotland, reflected that the explicit recognition of the devastating linkage between climate change and poverty galvanized her organization’s commitment to global emissions reductions. “It is at the back of our minds all the time,” she said. Christian Aid conducted its first audit in 2006 in the wake of its successful, high-profile climate change campaign urging grocery chains like Tesco to consider their carbon footprints (including the “food miles” from produce transported to grocery stores from growers around the world).

Tearfund’s relief work contributed to the organization’s recognition of the impacts of climate change on poor people. Laura Hughes, Climate Change Policy Assistant, said that working in disaster zones and degraded areas “made us aware of the environment as a resource and our role as stewards.” This increased awareness spurred internal action to reduce the

21 See the Conservation International web discussion with Michael Totten on May 26, 2006, “Weathering Climate Change” at: http://discuss.conservation.org/content/interview/detail/657/.
Box C: What is Green Energy?

Green energy refers to the power derived from less-polluting energy sources such as renewable and clean technologies. Solar and wind power are commonly labeled as green energy, but power derived from anaerobic digestion, geothermal, tidal, biomass, and wave and even small-scale hydro projects may also fall into the category.


The Wildlife Conservation Society (WCS) initiated a discussion on internal emissions reductions in 2006 and began calculating its footprint in 2007. Sarah Gillman, Vice President for Budget and Financial Planning, described the organization’s effort to take responsibility...
for its carbon footprint as both “necessary” and “integral to our mission to preserve wildlands and wildlife.” The Nature Conservancy also started calculating its footprint in 2007. After several of the Conservancy’s state chapters began pursuing carbon neutrality on an ad-hoc basis, the organization hired a firm to calculate the total footprint of its operations in all 50 U.S. states and more than 30 countries. As an advocate for a mandatory cap on carbon emissions and reductions actions across the U.S., Zoe Kant says the Conservancy decided “to take action and try to lead by example” under a unified strategy. The Conservation Fund (TCF) takes a non-advocacy approach to its environmental work, but selling its own brand of forestry carbon credits to corporations inspired internal action. As TCF encouraged businesses to cut their emissions and purchase offsets through its GoZeroSM program, the organization also reduced and offset its own footprint.

Among civil society organizations, and more specifically NGOs addressing environmental and humanitarian concerns, the pursuit of carbon neutrality represents an effort to increase credibility and/or legitimacy as well as an effort to simply “do the right thing.” Hunter Lovins, founder of Natural Capitalism Inc., articulated this assessment in business terms. “Non-profits are going carbon neutral,” she said, “because it’s the right thing to do – and your brand equity requires it.”

### 3.2 Calculating the Carbon Footprint

After determining that it wants to go carbon neutral – or simply understand and minimize its emissions – an organization's first step usually entails calculating its carbon footprint. The footprint represents the estimated emissions of CO\textsubscript{2} and other GHGs associated with all of an organization’s activities (programs, administration, logistics, etc.). Before an organization can calculate its carbon footprint, it must make two key decisions:
- What to include in its footprint calculations, and
- Which “calculator” tool to use.

#### 3.2.1 What to include

Emissions are usually classified as either direct or indirect. Accordingly, emissions from generators, an organization’s official vehicle fleet, etc. considered direct, whereas emissions from purchased electricity, travel on vehicles outside the organization’s fleet (e.g. commercial airliners), etc. are considered indirect.

Calculating the carbon footprint for an organization with multiple offices and operations spread across the world appears daunting at first glance. But the task is simplified by breaking down emissions into more manageable categories such as generator use, vehicle fleet fuel consumption, purchased electricity, business travel, and employee commuting. Many organizations begin by including only the most basic emissions sources in their footprints (like business travel and consumption of electricity and natural gas) and later build in emissions from office paper use, outsourced

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**Box D: Whose Emissions Count?**

Deciding which emissions to include in an organization’s carbon footprint can be tricky. Emissions directly or indirectly associated with all organizational operations and activities should be included. Some organizations extend their footprints to cover courier services, outsourced publications, and custom product manufacture. Others argue that the responsibility for these emissions rest with the courier, etc. This is an important debate. For instance, the amount of CO\textsubscript{2} emitted in the process of producing a car is nearly the same as emissions from driving the car over its lifetime! So, is the organization that purchases and uses the car responsible for the CO\textsubscript{2} emitted during production? Most organizational footprint calculations focus solely on the emissions released in the course of their daily operations and some factor in the emissions from outsourced goods and services. And while greening initiatives in many NGOs encourage waste prevention and recycling, carbon footprints seldom account for methane production from trash hauled off to the landfill.
publishing, courier services, etc. NGOs with operations spread across the globe often choose to pursue carbon neutrality at their headquarters before addressing field offices.

**Box E: Surprises in the Footprint**
Calculating a carbon footprint can help organizations gain new insight on their operations. Some NGOs must consider the emissions from specialty services, such as Oxfam’s inclusion of the more than 750 shops run by the organization in UK in its footprint. The Wildlife Conservation Society (WCS) carbon footprint will include emissions from its five wildlife parks in New York City (Bronx Zoo, New York Aquarium, Central Park Zoo, Queens Zoo and Prospect Park Zoo). Imagine maintaining a climate-controlled environment like a tropical rainforest in the middle of a bone-chilling New York winter or an icy penguin exhibit during the popsicle-peak of summer!

### 3.2.2 Which calculator tool to use
Choosing a calculator tool can be difficult: growing interest in carbon neutrality has spurred a boom in carbon calculators on the internet. Hundreds of calculators offer variations on the ‘calculate your footprint’ theme but their mathematical methodologies and assumptions are not always explicit. NGOs should consider their goals and motivations when developing a footprint strategy and choosing a calculation tool. They will need to decide issues such as: whether to use a technical assistance provider, the amount of time required for data collection and calculations, and which emissions factors to employ.

Zoe Kant, Manager of Carbon Markets for The Nature Conservancy (TNC), anticipated “a ballpark figure” from recent footprint calculations focusing on three areas of emissions: employee business travel and commuting, office-based emissions, and carbon sequestration and emissions from the Conservancy’s landholdings. Given TNC’s land management activities, calculating its operational footprint presented a variety of challenges that the organization concluded would be best handled by a consultant. The Conservancy contacted technical assistance providers approved by the California Climate Action Registry and chose the team best qualified to create a customized assessment including landholdings. Seeking technical assistance can expedite the calculations process: TNC’s provider calculated the organization’s global footprint in seven months.

Consultants sometimes keep their methodology and equations confidential, so organizations keen to develop experience with footprint calculations may choose an in-house strategy. With their credibility at stake, organizations should choose a calculator from a reputable source, which reveals the emissions factors it uses. For example, a simple methodology might include the following equations and emissions factors to calculate a basic carbon footprint:

\[
\text{Electricity Use} \quad \text{kWh} \times 0.6455 \text{ kg CO}_2/\text{kWh} = \\
\text{Petrol Use} \quad \text{litres} \times 2.34 \text{ kg CO}_2/\text{litre} = \\
\text{Air Travel} \quad \text{km} \times 0.15 \text{ kg CO}_2/\text{km} = \\
\text{Total kgs CO}_2
\]

\text{Divide total kgs by 1,000 for total metric tons of CO}_2

The sample calculator uses emissions factors (e.g. 0.6455 kg CO₂/kWh) from the Greenhouse Gas Protocol – a respected source. But within each equation are assumptions, which should also be revealed. For example, this simple equation assumes: the user’s electricity use is metered and sourced from a portion of the grid with this emissions factor; that petrol composition and combustion remain constant; and air travel conforms to an

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average emissions figure based upon variables such as occupancy, distance of flight, and time of day.

Awareness of the assumptions behind equations and emissions factors is essential, but NGOs can rely on standards set by government agencies including the U.S. Environmental Protection Agency (EPA) and Department of Energy (DOE) and the UK’s Department for Environment, Food and Rural Affairs (DEFRA). The International Standards Organization’s ISO 14064 standard is also widely recognized. Yet an overwhelming number of NGOs favored a set of peer-reviewed emissions calculations tools and guidance documents known as the Greenhouse Gas Protocol (GHG Protocol).

The World Resources Institute and World Business Council for Sustainable Development first released the GHG Protocol in 2005, but it has quickly become the most widely used tool for corporate greenhouse gas inventories and is regarded by most NGOs as the ‘industry standard’ for footprint calculations. Hunter Lovins of Natural Capitalism Inc. commented that the Protocol’s scope and accuracy should satisfy the toughest reviewers – right up to the most “recreationally-challenged physicist.”

The GHG Protocol’s user-friendly suite of spreadsheets and guidelines provides policy-neutral methods for quantifying, understanding and managing GHG emissions. All calculations are based on a single underlying equation:

\[ \text{Activity data} \times \text{Emissions Factor} = \text{GHG emissions} \]

For example, activity data – such as kilometers traveled by cars in an organization’s fleet – is multiplied by an emissions factor (e.g. grams CO\(_2\) emitted per kilometer) to yield the amount of direct CO\(_2\) emissions associated with the fleet. To calculate indirect CO\(_2\) emissions from electricity consumption, users multiply kilowatt hours (kWh) purchased from the grid by an emissions factor of CO\(_2\) emissions per kWh based on U.S. powerpools or averages by country. Calculating the sum total of all direct and indirect emissions associated with organizational operations yields the carbon footprint.

The GHG Protocol includes cross-sector calculations tools for industry, but NGOs benefit most from the service sector tool. WRI produced “Hot Climate, Hot Commerce” in 2006 to help office-based businesses and organizations understand and manage their GHG emissions. Accompanying the guidance are four GHG Protocol worksheets designed to calculate CO\(_2\) emissions from business travel, employee commuting, fuel use in facilities and purchased electricity. The worksheets offer a degree of flexibility (for example, CO\(_2\) emissions from car travel may be calculated by distance traveled in a particular size of vehicle or the amount of fuel consumed). Moreover, they anticipate institutional needs by including tools such as a survey on work and commuter habits devised to collect the most accurate information on employee commutes.

NGOs may also consider using specialized tools for calculating emissions related to air travel, which take into account the high altitude conversion of nitrogen oxides to ozone as

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24 Even organizations developing customized emissions calculators (such as the Business Roundtable’s Climate Resolve and the California Climate Action Registry) adapt methods and adopt emissions factors from the Protocol.

well as the climatic effects of contrails and ice clouds. The Tufts Climate Initiative (TCI) rated air travel calculators according to calculator accuracy, user-friendliness, and efforts to educate consumers about the climate impacts of air travel. TCI rated atmosfair and Climate Friendly tops in the survey of eleven air travel calculators. WWF is working with Climate Friendly to calculate and offset emissions from necessary business travel and have developed an air travel emissions worksheet based on factors from the IPCC and GHG Protocol. WWF business travelers simply enter their flight details and the Climate Friendly algorithm automatically returns an emissions estimate.

Regardless of which calculation strategy an NGO chooses, the important thing is to start. Creating an emissions inventory is an iterative process, and the first year’s is inevitably the hardest to calculate. The process typically highlights information deficiencies to be remedied in subsequent years. Ultimately, implementing new data collection systems enables organizations to improve the efficiency and accuracy of their calculations. Sarah Gillman, Director of Budgets and Financial Planning for the Wildlife Conservation Society (WCS), acknowledged that her organization’s first footprint estimate “will be rough and imperfect.” Despite the challenges of creating an accurate inventory, she encouraged others to “just try it... put pencil to paper and you’re off.”

3.3 Minimizing Emissions

After assessing its carbon footprint, an organization’s next step usually strategizing about how it can be reduced. Emissions reductions are often good for both the planet and an organization’s bottom line. Savings from emissions reductions can be reinvested into further efficiency gains and environmental programs to continue the positive feedback loop. NGOs identified several key areas for emissions reductions including:

- Air travel,
- Land-based travel,
- Electricity consumption, and
- Paper consumption.

While strategies to reduce specific forms of emissions are necessary to decreasing the organizational carbon footprint, NGOs also recommended pursuing further emissions reductions by developing broader initiatives and organizational guidelines encouraging offices and staff to:

- Choose renewable energy sources,
- Institutionalize green thinking, and
- Expand the sphere of influence.

3.3.1 Reducing emissions from air travel

With more flights and cheaper fares, international aviation showed an 83% increase of CO₂ emissions since 1990, making the sector responsible for between 4 and 9 percent of all anthropogenic climate change. For NGOs focused on international development and environmental programs, regular trips from headquarters to regional and field offices are an integral part in sustaining communications structures and managing programs. There are two main ways that organizations like CARE have tackled the challenge to reduce air travel.

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26 Air travel calculators should account for travel distance, flight class, type of aircraft, occupancy efficiency, directness of route and radiative forcing (any shift in the balance of radiation entering or leaving the atmosphere) associated with contrails of condensed vapor left by airplanes at high altitudes.

27 Available online at: [http://www.tufts.edu/tie/tci/carbonoffsets/aircalculator.htm](http://www.tufts.edu/tie/tci/carbonoffsets/aircalculator.htm).

These are: instituting policies requiring greater justification of need to travel and investing in video-conferencing technologies.

**Developing guidelines to reduce unnecessary travel:** Paired with technological investments, internal guidelines and planning documents are useful means to support air travel reductions. Christian Aid implemented a new corporate travel policy that considers climate impacts alongside ticket price. Although plane flights within the UK might be more economical than train rides, the new policy factors in the hidden climate costs associated with short-haul air travel. In addition, Christian Aid’s program managers are expected to include plans for decreasing unnecessary travel within their yearly plans. According to Lynda Mansson, Director, Network Performance Management, WWF International the entire WWF Network has committed to reducing travel and have adopted guidelines to minimize travel and encourage web meetings and video-conferencing. Similarly, Antonio Hill stated that both the International division and the Campaigns and Policy division of Oxfam expect to reach targets for reducing flights by 15 percent in the 2007-2008 financial year by altering staff working habits and investing in video-conferencing technology in the Oxford and regional offices.

Conservation International’s initiative to reduce air travel considers the stresses of excessive travel on the planet and employees. Elizabeth Baer, Organizational Sustainability Specialist for CI, asserted, “The cost of travel is not limited to the money spent on the ticket.” Business trips incur costs to programs, generate harmful emissions, and deprive staff of valuable office and home and family time. Tearfund encourages employees to combine long-distance trips and to travel by train rather than short-haul flights where this is possible; the organization also recognizes the implication of these decisions on personal lives.

NGO staff may decide web meetings and videoconferences in cases where face-to-face contact is unnecessary. However, many programs in the environmental and international development spheres require that trained professionals travel to the region. Although remote sensing technology is constantly improving, scientists still need to assess ecosystems in person. In a similar vein, Oxfam’s Antonio Hill clarified that while “40 percent of all our flights are taken by skilled humanitarian professionals flying into disaster zones” and their physical presence is “obviously essential, Oxfam is proactively reduce the remainder of air travel for other purposes.”

Hunter Lovins, a much sought-after guest speaker on sustainability, regularly receives invitations to events around the globe. Cognizant of the emissions associated with every flight, she began to decline some requests in an effort to reduce her own travel footprint. She recommends all travelers ask themselves “Are these activities truly necessary and are these airline miles worth it?” NGOs must likewise determine the extent to which air travel is necessary.

**Investing in video-conferencing technologies:** Air travel ranked as a top source of carbon emissions for World Resources Institute, Natural Resources Defense Council, Conservation International and World Wildlife Fund. But all four organizations are gradually embracing web meeting and video-conferencing technologies as a means to reduce their air travel footprints while maintaining business relationships.

No longer the complicated organisms prone to malfunction as in earlier years, current video-conferencing systems provide excellent image and sound resolution. NRDC representatives in New York headquarters say that video-conferencing makes communications with their newly founded Beijing office easier and more cost-effective. CI staff spoke highly of the

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29 The ICARUS toolkit, developed by the Institute of Travel Management is designed to help firms develop environmental travel policies. It is available at: [http://www.itm.org.uk/icarus/icarus_toolkit.asp](http://www.itm.org.uk/icarus/icarus_toolkit.asp).
Polycom system featured in their headquarters and a number of field offices. Advanced
technologies like the HP Halo video collaboration system earned high marks from users at
WWF. Matthew Banks claimed that when he uses the motion picture quality system to speak
with partners around the world, “It feels like you’re in the same room.”

To NGOs, the costs of video collaboration technologies can be daunting. One organization
sourced the funds for its video-conferencing technology from a capital improvement budget
so as to not stress program budgets. However, despite the substantial financial investment
required to install a video-conferencing system, organizations recouped the costs through
travel reductions within a few years. Alluding to the balance between financial costs and
communications gains one staffer judged: “I think it has paid off.” NGOs also reported using
less expensive technologies like Skype to facilitate webcam conferences between two or
three people, even across thousands of kilometers. And for web meetings and
presentations, they recommended software such as WebEx and GoToMeeting.

3.3.2 Reducing emissions from land-based travel
NGOs must reduce emissions from land-based travel associated with their operations as
well as the commuting habits of their employees. CARE’s decision not to participate in PL-
480 food aid programs significantly reduces the emissions tied to delivery of food halfway
around the world. Yet structural constraints remain. Promoting more sustainable commuting
behavior is also a challenge, but with the right incentives staff will walk, bike, take public
transit or carpool.

Operations: For organizations like CARE that are engaged in delivering food supplies to
vulnerable and insecure people, emissions from land-based travel are of special concern.
Stephen Gwynne-Vaughan Country Director, CARE International in Zimbabwe
acknowledges that the trucks contracted to deliver food to CARE’s distribution warehouses
travel hundreds of thousands of kilometers over poor roads and get about 2 kilometers per
liter of fuel. In addition, Gwynn-Vaughan notes that vehicles in the CARE fleet engaged in
delivering supplies directly to the food-insecure and vulnerable people in Zimbabwe use
hundreds of thousands of litres of fuel in transport activities annually, especially in drought
years.

Using more fuel-efficient vehicles could significantly reduce emissions from food delivery,
but they must be able to navigate rough terrain. Switching to a less-polluting fuel source may
also help to minimize emissions. Greenpeace UK is transitioning its domestic vehicle fleet
from diesel to low-impact biofuels (generated from waste oil – not imported oils from
plantation farming). However, garnering enough low-impact biofuel to supply the scale of
CARE International’s operations in Zimbabwe alone would prove difficult.

Staff commutes: Footprint reductions efforts not only target inefficiencies within
organizational operations, they also address how employees get to the office. NGOs can
effectively encourage employees to walk, bicycle, take public transportation, or carpool to
the office. And promoting telecommuting can even help staff avoid the commute altogether.

Upon discovering that emissions from workers commuting to its rather remote headquarters
in Teddington accounted for a substantial portion of their carbon footprint, Tearfund began to
encourage carpooling and ridesharing. The World Resources Institute, The Conservation
Fund, and Conservation International all consciously chose office locations steps away from
a Washington Metro stop and encourage employees to take public transportation. They also
provide pre-tax reimbursement options for employees or participate in the local government
SmartBenefits® (formerly Metrochek) program offering monetary incentives for use of public transit. 30

3.3.3 Reducing emissions from electrical consumption
Reducing emissions from electrical consumption is not only good for the climate but helps to reduce energy bills. For WRI, a glance at its first carbon footprint revealed room for efficiency improvements. The organization switched to all compact fluorescent light bulbs, replaced old computers and appliances with Energy Star units, and installed power saving features like motion sensors for lighting. At the same time, moving to a new office lead to even greater efficiency gains. Under similar lease and budget constraints as other organizations, WRI set out to prove that it could design a more sustainable, energy efficient work environment by sourcing natural, recycled, low-energy and non-toxic building materials, flooring, furniture, lighting and appliances.31 Office overhauls like the one conducted by WRI, according to Project Manager Putt del Pino, represent a trend among NGOs toward a “more responsible strategy to integrate the office lifestyle with their work.” Other organizations, including Christian Aid, Tearfund, Greenpeace, TCF, WWF and CI, have also conducted energy audits and/or undertaken retrofits to improve energy efficiency.

The EPA reports that nearly half of all U.S. greenhouse gas emissions are associated with energy consumption by commercial and industrial buildings. This highlights not only the inefficiencies of the buildings themselves but also the habits of the workers inside. Sustainable design features improve building efficiency and help workers ditch wasteful habits. At Conservation International’s headquarters, daylight-responsive hallway lights dim and brighten in response to ambient levels of natural light streaming through the windows. Built-in timers and motion sensors maximize lighting efficiency and reminds encourage staff to turn off the lights. Most even choose to leave their lights off. “Scientists love working in the dark!” laughed CI’s Sonal Pandya. Replacing desk lighting with compact fluorescents keeps light focused where it is most needed. But Pandya noted that some inefficient habits required creative action. She pointed to cell phone chargers left in the socket between charges. “Adapters are ‘wall warts’: they deliver in direct current only half as much energy as they suck out of the wall; the rest is wasted,” she said.32 The solution: get everyone to plug into a power strip and turn that off at the end of the day.

3.3.4 Reducing emissions from paper consumption
NGOs may expect emissions associated with energy use to comprise a substantial portion of their carbon footprints, but Christian Aid was surprised to find that paper use accounted for over half of its organizational footprint. Following a timely transition from paper-based publishing to a web-based system, Christian Aid is now developing a new strategy for member communications and conducting regular internal audits of printing systems to make staff conscious of their paper consumption.

Box F: Calculating Emissions from Paper Use
NGOs are also becoming more aware of the carbon emissions associated with their paper usage. A calculator developed by Environmental Defense reveals a comprehensive picture of the environmental impacts – specifically estimating the wood use, total energy, greenhouse gases, wastewater and solid waste – associated with paper usage. The user-friendly calculator even differentiates between paper grades and levels of recycled content, inspiring more sustainable procurement and consumption practices. Look for it online at: http://www.papercalculator.org.

30 A list of programs that allow businesses to earn tax benefits by subsidizing employees’ commutes in cities across the U.S. is available from: http://www.commutercheck.com/cities/otherCities.aspx.
Procurement specialists helped reduce Conservation International’s paper footprint by switching to 100 percent recycled/35 percent post-consumer content paper. Information technology specialists collaborated by installing new digital filing systems and changing printer settings on every computer to automatically select double-sided printing and draft mode.

3.3.5 Reducing emissions by choosing renewable energy sources
Efforts to improve efficiency and decrease energy demand help to reduce an organization’s carbon footprint, but supply-side measures also prove beneficial. The U.S. Department of Energy estimates that renewable sources generated nearly a tenth of U.S. electricity in 2006, but increased demand can boost this figure. Greenpeace sets an impressive example by generating some of its own electricity from solar panels. But as building tenants, many NGOs are unable to install photovoltaics. The next best option is to purchase electricity from a local renewable source such as wind, solar, geothermal, hydro, or biomass.\textsuperscript{33}

Organizations in locations without green power may choose to purchase Renewable Energy Credits. WWF’s Matthew Banks counseled NGOs to be conscious of where the RECs they purchase operate. “RECs from the local market can further the supply of renewable electricity in your area,” he said. Choosing locally derived RECs may align with program goals – for instance, a commitment to reducing regional smog or asthma rates. RECs allow the owner to claim to have purchased renewable energy without switching electricity providers. This may seem confusing, but essentially RECs subsidize renewable energy production in other areas.

Box G: What Are RECs?
Renewable energy certificates (RECs), also sold as Green Tags, Renewable Energy Credits, and Tradable Renewable Certificates (TRCs), create financial incentives for renewable energy. For every 1,000kWh of green energy produced for the grid, providers receive one REC. The market for RECs generates subsidies for renewable sources, ideally displacing the more polluting forms of energy production.

Many RECs are not governed by the same standards as offsets – particularly the requirements on additionality. However, quality RECs are generated from clean technology facilities generated built after 1997, registered to ensure single-party ownership, and subject to verification audits. Green-e, the leading U.S. renewable energy certification program, even ensures that the RECs it certifies for the voluntary market were not created to fulfill legal obligations, such as renewable portfolio standards.\textsuperscript{34}

3.3.6 Institutionalizing ‘green thinking’
The strongest NGO emissions reductions initiatives benefit from three key elements: charismatic leadership, organizational planning, and monetary backing. CI’s Michael Totten earned praise from his colleagues for his “inspirational” personal commitment to sustainability and his guidance as “champion” of the Greening CI program. Totten cycles to work, supports telecommuting, and makes time in his schedule to check on the implementation of greening efforts. “He took thirty minutes out of his day to look at printers,” noted one co-worker. Totten’s attention to the details, like double-sided print settings, inspired administrative assistants to monitor the printers and encourage more sustainable printing habits.

While it is important for busy leaders like Totten to demonstrate their commitment to office greening, teams must also set timelines with deliverables, goals and measures of success.

\textsuperscript{32} Pandya cited an article by Matthew L. Wald entitled “The Unwasteful Home: I Vant to Drink Your Vatts” published on November 17, 2005 in \textit{The New York Times}.

\textsuperscript{33} Green energy providers by geographic location are available from Green-e at: \url{http://www.green-e.org/gogreene.shtml} and the U.S. EPA at: \url{http://www.epa.gov/greenpower/locator/index.htm}
like any other initiative. And, if budgets permit, it is most advantageous to hire a full-time "point person" on sustainability to whom all inquiries and suggestions may be directed. Funds are tight in the non-profit sphere, but NGOs must resource their sustainability committees to adequately handle large yet vital expenditures, such as video-conferencing systems. Ultimately, the savings from footprint reductions will far exceed the capital investments and organizations can reinvest the gains in services, goods and technologies supporting further efficiency.

**Collaborative efforts reduce emissions and improve morale:** Collaborative thinking and peer encouragement serve as powerful tools for emissions reductions initiatives. Members NRDC’s internal eco-committee channel their extra time and creativity into devising office emissions reduction strategies. TCF takes "an all hands on deck approach", soliciting the ideas and talents of all employees from scientists to executives. Tearfund distributes a monthly environmentally-friendly action item and tasks ‘environmental champions’ from each department or project area to engage with their teammates for one hour each month on developing best practices for implementation.

“Everyone wants to do good for the world at the end of the day," said Sonal Pandya, “give them a role.” Her program at CI relies on input from personnel in charge of information technology, administration, operations, procurement, stakeholder engagement, event planning and budgets, but also solicits new ideas from the wider employee network during quarterly events. These staff-led efforts send officemates electronic reminders unplug chargers and turn off their computers at the end of the day. NRDC’s committee has raised questions like: “What if we turned off the water coolers at night?” However, according to Natural Capitalism Inc.’s Hunter Lovins, the most important question organizations must continually ask themselves is: “What else can we do?”

The biggest challenge to emissions reductions is human nature. A representative of one organization explained, “We’re all human… when you have been doing something for twenty years – or even two years – it can be hard to change habits.” It can also be hard to reevaluate assumptions based on outdated information: for example, that compact fluorescent light bulbs flicker, hum and provide poor light quality. Collaborative greening initiatives encourage employees to challenge their assumptions and engage with workmates through positive, solutions-based efforts to reduce emissions. In favor of inclusiveness, the Greening CI program discusses sustainability issues at brownbag lunches and after-work happy hours. Participant Sonal Pandya affirmed, “There is a lot of great, positive energy around the initiative; it brings people together in unique and inspiring ways.” Unsurprisingly, organizations engaged in collaborative emissions reductions plans reported improved staff morale.

**3.3.7 Expanding the sphere of influence**

For international development and environmental NGOs concerned about the effects of global warming on the most vulnerable populations and ecosystems, emissions reductions initiatives present an opportunity to incorporate the ideals embodied in their mission statements into their operations. They are also an opportunity for NGOs to gain credibility as exemplars of sustainability. Earning recognition may involve a responsibility to serve as advisers or models. For example, WRI offers tours of its office space to the public. In this way, NGOs and their employees become forces for positive change in the communities where they operate. TCF’s Jena Thompson said that pursuing emissions reductions at the office made her more aware of her own footprint. Now she considers packaging in her consumer decisions, consolidates errands, washes her laundry with cold water, and uses her catching enthusiasm to encourage others to follow suit. Organizations can make the most of this multiplier effect by supplying staff with information on how to green their homes and communities.
SECTION FOUR: Offsetting Emissions

Recognizing the “haphazard use of the term” and the commitment it entails, WWF avoids referring to “carbon neutrality” when describing its emissions reductions efforts. Matthew Banks said he preferred the question: “How do we manage our carbon footprint in a responsible way?” Banks explained, “The term ‘carbon neutral’ has the baggage of offsets with it. What you want to do is to come up with a comprehensive plan to reduce your carbon footprint. It is easy to go out and buy credits, but you need to set goals for reductions.” But buying credits to offset remaining emissions can be difficult, said Banks “simply because the market is so chaotic that it is hard to know what you are buying right now, particularly in the U.S. where there is no policy framework.”

4.1 Getting to Neutral

Some organizations do not publicize their carbon neutrality, perhaps because critics question the conceptual and scientific value of offsets. The Natural Resources Defense Council (NRDC) has been working for several years to reduce energy consumption and achieved carbon neutrality in terms of onsite energy use and travel in 2006. However, the organization does not publicly advertise its carbon neutrality. A representative emphasized NRDC’s central motive: “to demonstrate that it is possible to reduce global warming pollution while actually reducing operating costs – by improving the efficiency of our buildings, reducing unnecessary travel, etc.” Policy Fellow Allie Silverman said, “The most important priority is to reduce emissions and then to offset the remainder in a responsible way.” NRDC focuses on publicizing its emissions reductions rather than its offset purchases to discourage the fallacy that neutrality can be bought without changing consumption patterns. To achieve neutrality, Silverman claimed, entails more than “just to pay for it.” Instead, “you have to change the situation” and commit to real reductions.

Some organizations question the usefulness of offsets altogether. According to Robin Oakley of the UK offices, Greenpeace maintains “a skepticism of the term and concept ‘carbon neutral’ – at least if it is taken to imply value in reaching net emissions that are notionally zero (for example using offsetting) – rather than directly cutting primary emissions.” His colleague Charlie Kronick worried that the voluntary carbon market is “sending this message that somehow [an offset is] this get-out-of-jail-free-card.” However, Tearfund’s Laura Hughes said that understanding the implications of climate change for poor communities engenders a paradigm shift. Rather than emphasizing what offsets allow us to “get away with” or how they can assuage our guilt, Hughes said the new paradigm encourages institutions and individuals to do everything they can to reduce their emissions and to compensate for the remainder by investing in credible reductions.

Jonathan Haskett of ICRAF admitted, “There will be those out there who use offsets to justify an excessive carbon footprint.” But to blame offsets for purchasers’ improprieties is irrational. “You can use a kitchen knife to cut onions or assault your neighbor – what you did is questionable at best, but it is not the knife’s fault,” he reasoned. Haskett said organizations should not dismiss the offsets altogether because they can “create an economic resource for the poor where it did not exist before – if done correctly.”

Rather than rejecting carbon neutrality for its weaknesses, some NGOs are purchasing credits to offset their minimized footprints while employing their expertise to strengthen offset standards. NRDC has long advocated energy efficiency and still adheres to the rule: “reduce before you have to buy your way out.” The organization uses a mixed portfolio of credits

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from local and regional sources to offset its footprint, but does not publicize their source. A representative of the organization clarified that there “is no dispute within the organization” but nor will it promote any provider. NRDC is working to promote credible offset certification schemes and participates in the carbon market in order to “understand how it works and how to make it better.”

4.2 Developing an Offset Strategy

Offsets can be purchased from external or internal sources. Regardless, NGOs deciding to develop an offset strategy should consider the following:
- Project accountability mechanisms,
- Certification and standards,
- Recommended providers,
- Pricing,
- Project types, and
- Multiple benefits

This section addresses each of these topics with the aim of demonstrating how NGOs can accurately assess projects and assemble an offset portfolio that complements their organization’s mission and upholds its integrity.

4.2.1 Project accountability mechanisms

According to Kitty Wang of the Rocky Mountain Institute, “The quality of the offset depends on the quality of the project that created the offsets.” The table below lists six key categories in which project developers and providers ensure the quality and veracity of their offsets. NGOs should confirm that any offset they purchase meets these accountability criteria.

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>Additionality</td>
<td>Emissions reductions must be additional to the business-as-usual scenario. Additionality may be proven by demonstrating that the reduction would not have otherwise occurred, for example, that it exceeds legal requirements (regulatory), overcomes significant institutional or technological barriers and/or is only economically feasible with revenues generated by the sale of offsets (financial).</td>
</tr>
<tr>
<td>Measurability and Verifiability</td>
<td>Emissions reductions must be quantifiable according to peer-reviewed standards and verifiable within standard margins of error. Retailers should provide evidence of third-party verification upon request.</td>
</tr>
<tr>
<td>Proportionality</td>
<td>The number of carbon credits generated by a particular project should be directly proportional to the actual reduction of greenhouse gas emissions. Moreover, any offsite emissions resulting from the project (termed leakage) must be reflected in the calculation of carbon credits.</td>
</tr>
<tr>
<td>Duration and/or Permanence</td>
<td>If the emissions reduction from a given project is not permanent, the retailer must estimate the length of time it will keep carbon out of the atmosphere. Projects should also provide guarantees that buffers and replacements prevent reversals. (For example, carbon forestry projects must anticipate tree losses associated with disease, fire, and other foreseeable risks.)</td>
</tr>
<tr>
<td>Registration</td>
<td>Credits should be registered and retired on a credible GHG registry (e.g. the California Climate Action Registry) to ensure they are not sold multiple times.</td>
</tr>
<tr>
<td>Transparency</td>
<td>The quality of credits should be guaranteed in a transparent way – buyers must have access to information on the projects generating credits and the accountability standards governing them.</td>
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</table>

35 For an excellent overview, see the article “Carbon Offsets 101” by Anja Kollmuss in WorldWatch Magazine, July/August 2007.
4.2.2 Certification and standards
Business for Social Responsibility advises consumers in the voluntary market to seek offsets from firms whose operations are verified by independent contractors at the organizational and project levels. Consumers may also choose to purchase offsets adhering to certifications and standards including: Greenhouse Friendly (Australian Government); Australian Green Power; EcoLogo; Winrock International; Forest Stewardship Council; Strict CDM; CDM equivalent; Voluntary Gold Standard; Voluntary Carbon Standard; Climate, Community and Biodiversity Standard; Green-e; and Plan Vivo.

Three sets of standards set strong benchmarks for quality in the voluntary market. As two of the most respected standards in the voluntary market, the Gold Standard for Voluntary Offsets and the Climate, Community and Biodiversity Standards function both as product development methods and as premium credit labels.

The World Wildlife Fund initiated the Gold Standard as a project development method and a credit label for top-quality credits generated from renewable energy and energy efficiency projects in developing countries that meet strict additionality standards and incorporate local stakeholder involvement, these credits are independently verified by UN-accredited organizations.\textsuperscript{36} Valued at a premium for their rigor, Gold Standard credits are in growing demand on the compliance and voluntary markets.\textsuperscript{37}

WWF offsets its emissions from unavoidable air travel only with Gold Standard offsets. Christian Aid also purchases Gold Standard credits to offset its flight emissions and views offsetting as a last resort. Claire Shelley claimed, “Offsetting is one of those things that starts getting you into thinking that you can carry on emitting as long as you pay to offset it.” Given recent media exposes of carbon forestry projects gone awry, Christian Aid opted to purchase certified offsets adhering to an internationally recognized standard so as “not to add to the chaos.” However, the organization may also consider developing offsets with partner organizations that could help to mitigate the effects of climate change on the poor.

The Climate, Community and Biodiversity Alliance (CCBA) created a set of standards to provide opportunities for high-quality carbon forestry and land use projects with strong community and biodiversity benefits in the voluntary market. CARE, Conservation International, The Nature Conservancy and the Wildlife Conservation Society support the Climate, Community and Biodiversity (CCB) Standards – an evaluation framework for land-based offset projects. Seeking to improve the quality of credits in the compliance and voluntary market, the standards identify projects that simultaneously mitigate climate change; contribute to sustainable development in local communities; and protect natural biodiversity. To receive CCBA approval, projects must fulfill fifteen required criteria addressing all the accountability standards of efficiency projects as well as land tenure, leakage, positive community and biodiversity impacts. Silver or Gold ratings are bestowed

\textsuperscript{36} Additionality standards are essential, but understanding the concept can be difficult. To illustrate additionality, Hunter Lovins explained that it would be “cheating” for a conservation organization to claim carbon neutrality based upon its regular avoided deforestation portfolio. Referring to her own efforts as a founder of the California Conservation Project for urban forestry and environmental education (a.k.a. TreePeople), she said, “I planted millions of trees with TreePeople, but it doesn’t make me carbon neutral for life.” For a description of various tests to determine additionality see: Trexler, Broekhoff and Kosloff – “A Statistically Driven Approach to Offset-Based GHG Additionality Determinations.” Sustainable Development Law and Policy Winter 2006. The UNFCC Additionality Tool provides useful techniques for assessing and demonstrating additionality. It is available online at: http://cdm.unfccc.int/methodologies/PAmethodologies/AdditionalityTools/Additionality_tool.pdf.

\textsuperscript{37} The original Gold Standard was developed specifically for compliance markets, but the Gold Standard for Voluntary Offsets draws on nearly the same protocol as its CDM counterpart with simplified verification procedures allowing for inclusion of smaller projects unable to apply under the Kyoto system.
upon projects earning extra points for fulfillment of optional criteria. By promoting quality, land-based offset projects, including afforestation, reforestation and avoided deforestation, the CCB Standards create more opportunities for carbon-financed sustainable development among the poorest of communities in land-rich, underdeveloped countries.

Recently developed by the International Emissions Trading Association, the Climate Group, and the World Economic Forum, the Voluntary Carbon Standard seeks to standardize the non-compliance market by promoting the VCU (voluntary credit unit) as a tradable, trusted commodity. The Voluntary Carbon Standard endorses a buffer approach to ensuring permanent reductions from land use, land use change and forestry offset projects. Thus, both projects certified by the Gold Standard for Voluntary Offsets and the CCB Standards are expected to be compatible with the Voluntary Carbon Standard.

4.2.3 Recommended providers
A booming network of providers sells carbon offsets on the voluntary markets. Some work on behalf of businesses: they provide greenhouse gas trading services, match buyers and sellers for carbon mitigation schemes under the Kyoto Protocol, and provide consulting services to companies seeking to reduce their carbon emissions. Retailers serve the broader voluntary market, ranging from individuals and event planners to NGOs and local governments.

Given the recent proliferation of firms in the voluntary market choosing a suitable provider can seem daunting. Fortunately, a few organizations have commissioned or conducted research on the sector and provided their recommendations for offset providers. Clean Air-Cool Planet commissioned Trexler Climate + Energy Services to evaluate 30 offset providers according to: quality of offsets, availability of information on offset quality for customers, transparency of operations and project selection, demonstrated understanding of technical requirements for quality offsets, customer education on global warming science and policy, multiple-benefits, and third-party verification and certification standards. Based upon its findings in these key areas, the report recommended eight providers: atmosfair, Driving Green (a.k.a. AgCert), The Carbon Neutral Company, Climate Care, Climate Trust, CO2 Balance, Native Energy, and Sustainable Travel International.

The Tufts Climate Initiative (TCI) rated air-travel offset providers according to: accuracy of CO2 emissions calculation methodology, quality of documentation and offset projects, verification standards, and transparency. The Initiative gave top marks to four providers: atmosfair, Climate Friendly, myclimate, and Native Energy. World Wildlife Fund also recommended the four providers recognized by TCI. The organization’s counsel justifiably reflects its preference toward providers of Gold Standard credits, as WWF developed the standard. However, it may be wise to question the basis of an organization’s recommendation of a provider if not readily apparent. Any endorsements should be backed by sound analysis. For example, Environmental Defense’s criteria included: achievement of emissions reductions through sound methodologies and practices, third party verification, offset registration and tracking, permanent emissions reductions with protection against reversals, and multiple benefits for the environment and local communities. On the basis of this analysis, Environmental Defense recommends: e-BlueHorizonsSM, Natsource, DrivingGreen, AtmosClear, and Carbonfund.

38 See the chart at the end of this report for a list of 105 offset providers.
39 The CA-CP report is online at: www.cleanair-coolplanet.org/ConsumersGuidetoCarbonOffsets.pdf.
4.2.4 Pricing
The TCI report discovered no correlation between the price of offsets and the profit/non-profit status of the provider. Yet offset prices tend to increase up the supply value chain and decrease closer to the source, so it may be useful to learn whether a provider originates the projects or simply acts as a broker for the credits. According to The Climate Group, average prices per metric ton of CO$_2$e are as follows: retailers $8.04, brokers $6.03, wholesalers $5.31, and project developers $3.88.\textsuperscript{41} The cost of offsets from top-ranked providers can exceed $25 per ton. But RMI’s Kitty Wang cautioned, “It is not just about getting the greatest number of CO$_2$ tons offset for your buck – quality matters.” According to Wang, the quality of an offset directly affects its market value: high quality offsets tend to be in higher demand and are traded more frequently in the offset market. Moreover, certifications and standards are considered to be reflections of higher quality; such that the Tufts report demonstrated offsets certified for the compliance market were more expensive, reflecting higher transaction costs.

Regardless of the price, customers should consider how much of every dollar spent on offsets reaches the project level. Apart from operating costs, some ancillary services –such as consumer education on climate change science and policy – are considered legitimate. However, offset providers should disclose what percentage of their offset sales revenue goes to project implementation, as the Tufts study showed that this can range anywhere from 25 to 93 percent. For example, one ton of CO$_2$ costs $22 to $34 to offset with Climate Friendly: 60 percent of funds are directed toward its Gold Standard projects and 40 percent go to administrative costs, including essential verification and registration systems.\textsuperscript{42}

4.2.5 Project types
NGOs should consider which types of offset projects and technologies they wish to support. The best-recognized forms of credit generation are outlined in the table below.

<table>
<thead>
<tr>
<th>Type of Project</th>
<th>Means of Emissions Reduction</th>
<th>Comments</th>
</tr>
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<tbody>
<tr>
<td>Energy Efficiency</td>
<td>These projects substitute more efficient technologies requiring less energy for the status quo, thereby reducing emissions.</td>
<td>Some providers prefer these projects because the credits are often easy to quantify.</td>
</tr>
<tr>
<td>Greenhouse Gas Capture</td>
<td>By capturing greenhouse gases, such as HFCs from industrial processes or methane from farms, landfills, and coalmines, these projects limit the harmful effects of these potent gases.</td>
<td>Anaerobic manure digesters can turn cow patties into energy, while methane captured from landfills or coalmines can be flared or used to generate electricity.</td>
</tr>
<tr>
<td>Renewable Energy</td>
<td>Investments in clean, renewable energy such as wind and solar power reduce emissions by displacing demand for fossil fuels.</td>
<td>Such investments in underdeveloped areas may promote “leapfrogging” directly to clean technologies.</td>
</tr>
<tr>
<td>Biological Sequestration</td>
<td>Afforestation and reforestation projects absorb existing CO$_2$, while avoided deforestation and no-till agriculture prevent the release of carbon into the atmosphere.</td>
<td>A healthy forest sequesters around 2.5 metric tons of CO$_2$ per acre and each tree can filter 60 pounds of pollutants from the air annually.</td>
</tr>
</tbody>
</table>


An offset portfolio should reflect the mission of its bearer, whether by the technologies associated with offset types, location where credits were generated, or standards it upholds. Since carbon may be released into the atmosphere or removed from it at any point on the globe, NGOs can choose to purchase offsets generated from a specific geographic region. RMI’s Kitty Wang counsels organizations to consider which type of offset would best mesh with their agendas, for example, whether they are also concerned about benefits to local communities. She also tells them to be wary of second order effects or consequences associated with offset projects – such as establishment of non-native monoculture plantations or use of pesticides.

NGOs should regularly reevaluate their offset strategies to reflect their priorities in the context of the changing voluntary market. WRI joined the Chicago Climate Exchange (CCX) in a few years ago in order to gain practical experience with a cap and trade system. As a member of the voluntary carbon trading regime, WRI met its carbon commitment through CCX and sought to improve its rules and policies. However, WRI decided to leave CCX and return to the carbon retail market in 2007. Acutely aware that it sets an example of sustainability for businesses, NGOs and individuals, WRI is currently reformulating its offset strategy.

4.2.6 Multiple benefits
Some offset projects are designed not only to mitigate climate change, but also to provide additional benefits such as environmental enhancement, infrastructure improvements, and development of local livelihoods. These multiple-benefit offset projects prove that carbon neutrality is a concept with the potential to encourage greater ecological and economic equilibrium.

Mitigation-Adaptation (Mit-Ad) projects are a popular variety of multiple-benefit scheme building on possibilities to both mitigate climate change and help poor communities adapt to increasingly severe weather. Angie Dazé, Regional Climate Change Advisor on Southern and West Africa for CARE International, said Mit-Ad schemes often apply to forestry projects. She also cited a recent project to provide people with more fuel-efficient stoves in Tajikistan, where the winters are getting longer and colder. Dazé reminded NGOs that singularly-focused adaptation and mitigation projects are “valuable in their own right” and urged them to resist the temptation of combining the two unless the mitigation activity is also “a reasonable adaptation strategy.”

Saleem Huq, Head of the Climate Change Group at the International Institute for Environment and Development (IIED), is turning the Mit-Ad world on its head. Huq is working with a coalition of environmental and development NGOs to create Ad-Mit Responsibility, the methodological foundation for premium projects that first address adaptation and then mitigation. He emphasizes that traditional offsets will never neutralize the impacts of emissions without seriously addressing adaptation in the most vulnerable of communities. Seeking to develop the most ethical product on the market, Ad-Mit Responsibility will begin by identifying the people most affected by climate change and the adaptation strategies best suited to address their particular needs.

Land-based mitigation projects often have powerful potential for multiple-benefits. Jonathan Haskett of the World Forestry Centre (ICRAF) claims that biosequestration projects are most likely to assist poor people, particularly on the impoverished, land-rich African continent. However, the opportunities for these projects are limited on the compliance market because the current CDM regime allows only a very limited range of land use project types. Moreover, by limiting the use of afforestation and reforestation (AR) projects to not more than one percent of the CDM package for Annex I countries and imposing a 60-year replacement rule on accredited forests, Kyoto discourages development of CDM-quality AR credits and could actually encourage logging at the end of the crediting period. Haskett
believes that these restrictions, as well as the low threshold for “small-scale” AR projects, undermine acceptance of forest carbon projects and diminish opportunities for credit-financed development in communities where land is one of the few resources available for carbon market participation.\footnote{43}{Acknowledging recent statistics showing HFC destruction projects accounting for 60 percent of the CDM market, he asks, “And these have development benefits for whom?”}


Haskett called for easing the restrictions on carbon forestry, saying the “world needs to consider options that will give Africa a stake.” And carbon forestry is finding champions on the continent that stands the most to gain from its broader acceptance. Founder of Kenya’s Green Belt Movement and Nobel laureate, Wangari Maathai is a powerful advocate for increasing the share of afforestation and reforestation in the compliance market. Additionally, Kyoto must be amended to include avoided deforestation (from the potential threats of logging and fire) as an eligible CDM credit type. As Michael Totten of Conservation International observed, the burning of 14 million hectares of tropical forests annually creates 20 percent of total global GHG emissions and destroys 16 million species populations.\footnote{45}{See “Weathering Climate Change” a discussion with Michael Totten, Senior Director of the Climate, Water and Ecosystem Services at the Center for Environmental Leadership in Business, May 25, 2006. Transcript available online at: http://discuss.conservation.org/content/interview/detail/657/}

Credit-backed avoided deforestation projects can provide revenues for impoverished forest communities; create incentives not to burn tropical forests; and protect millions of species from extinction.

Despite its great promise, the legitimacy of tree-planting projects withered with news of the blighted ‘Coldplay Forest’ in India. The band Coldplay contracted Future Forests in 2002 to fund a scheme to plant 10,000 mango trees in rural villages. Without water distributions and maintenance payments promised by the implementing partner, a staggering number of the trees died. A fierce round of finger-pointing ensued, but ultimately the reputation of biosequestration as a reliable method of offsetting emissions suffered more damage than the parties involved in the failed project.\footnote{46}{This is an example of what Haskett calls “blaming the knife.”}

At the same time, conflict between a local community and the security forces hired by exclusionary carbon forestry programs further weakened the offset type’s image.\footnote{47}{See the Forest Peoples report entitled “A Funny Place to Store Carbon” by Chris Lang and Timothy Byakola published in December 2006.}

While land use and forestry credits still dominate the voluntary market by volume, the World Resources Institute’s Derik Broekhoff noted that concerns about quantifiability, leakage, and permanence can also undermine their credibility. Thus, purchasing credits from carbon forestry projects adhering to standards such as those developed by the CCBA is highly recommended.
4.3 Developing Offsets Internally

To ensure quality and accountability, conservation and development organizations favoring credits generated through biosequestration may prefer to internally produce credits to offset their reduced emissions offsets rather than purchase credits from a provider. The Nature Conservancy is “holding out for higher ground: we want to set a standard... to endorse retailers is not a good use of our time,” asserted Zoe Kant. Determined to lead by example and to produce offsets it can believe in, The Conservancy joined the Climate, Community and Biodiversity Alliance (CCBA). The Wildlife Conservation Society is also a CCBA member considering the possibilities for internal offset development. “Our long-term goals and strategies help reserve standing carbon,” said Sarah Gillman, citing her organization’s natural affinity for avoided deforestation projects. And Conservation International – whose Center for Environmental Leadership in Business convened the CCBA – offsets its remaining emissions through Conservation Carbon projects, which are effectively in the CCB pipeline.

The CCBA has created a credible set of standards to help biosequestration overcome its damaged standing. The CCB Standards employ peer-reviewed scientific quantification methods, verification systems, forest management techniques, and forms of insurance like buffer pools to ensure quality standards. But CCBA’s Toby Janson-Smith lamented, “Many are still holding on to the old paradigm, though it has shifted.” Citing +/- 10 percent variance rates, he claimed, “Carbon forestry is just as qualified as energy as a quality offset these days.” However, trees grow slowly and cannot be coaxed to grow much faster, making timescale a relevant concern: a reforestation or afforestation project started now will not generate benefits until after 2012. “There is nothing inherently disadvantageous about forestry projects,” said Janson-Smith, “it is about how the transaction is structured and reported.” Mechanisms for forward crediting can help finance 30 to 60 percent of start-up costs for reforestation and afforestation projects. Naturally, timescale barriers do not apply to avoided deforestation projects, which begin generating benefits immediately by preventing the release of CO₂.

The greatest success of the CCB Standards is its ability to leverage funds from carbon markets to fulfill climate mitigation goals, while bringing local community and biodiversity benefits. Multiple-benefit projects are inherently more resilient from both biological and socio-economic perspectives. A biodiverse forest is less vulnerable to pests and fire, while stakeholder-managed forests are better protected. Inclusive carbon forestry projects need no security forces because communities benefiting from the project have a stake in protecting their assets. Community support and biodiversity protection, in turn, increase the value and credibility of CCB-certified offsets, thus creating more opportunities for land-based, pro-poor projects.

4.4 Budgeting for Neutrality

NGOs must budget for three sets of expenses associated with neutrality: reductions, staff and offsets. While reductions ultimately help organizations save money, they may require strategic investments – for example in videoconferencing technology or Energy Star appliances. The greater their emissions reductions, the fewer offsets NGOs will need to purchase to achieve neutrality. But how should organizations on tight budgets find the funds to purchase offsets or pay for a sustainability specialist?

Elizabeth Baer of Conservation International suggested budgeting in advance. Offsets are not typically as expensive as some organizations expect, but they should also expect to allocate time and/or funds to a dedicated staff member tasked with developing and implementing a carbon neutrality strategy. Moreover, diverting funds from program budgets...
to purchase offsets poses little fiscal threat to the integrity of the programs themselves. To spread the cost of offsets according to proportional rates of consumption, CI estimates the generation of waste and use of water, energy, and paper by program. While the minimal cost of offsets provides little disincentive to decrease consumption, it can help to raise awareness. Baer maintained, “Monetarily it does not slow them down… it is not a leverage point, but it does attach the cost of offsetting to the behavior generating the impact in the first place.”

Samantha Putt del Pino at the World Resources Institute told a similar story. WRI currently funds both the staff time required to calculate the organizational carbon footprint and implement emissions reductions strategies as well as the cost of offsets from its administrative budget. Originally, the organization split the costs of offsetting air travel emissions proportionally across programs. Unsurprisingly, the offset costs more or less mirrored the project budget size because the largest projects had the most flights. According to Putt del Pino, “it was a good model in the respect that programs bore the financial burden of their carbon emissions and it helped raise awareness, [but] in reality, the burden was so small that it was not enough to make people change their behavior.” Hence, WRI began purchasing credits out of its administrative budget for simplicity’s sake.

Hunter Lovins of Natural Capitalism Inc. claimed that NGOs should consider carbon offsets as part of their operating costs. “It is just another cost of doing business in a responsible way,” she said. The Nature Conservancy also assumes this perspective. The Conservancy has not yet decided how it will allocate funds for carbon offsets, but Zoe Kant said that one option may be to set up an internal fund to which its various state and country programs can contribute a set dollar amount per ton of carbon to offset their operations or a particular event. To ensure additionality, the fund would then be used to implement a land conservation project that otherwise would not have been possible.

SECTION FIVE: Conclusions

As leaders in the environmental and development communities of practice, CARE and other NGOs are well positioned to advocate for climate action. They seek to broaden and strengthen adherence to the Kyoto protocol, promote renewable energy and clean technologies, encourage more sustainable lifestyles, and introduce adaptation techniques to communities affected by global warming. Adhering to principles and a desire to “do the right thing”, organizations engaged in environmental protection and sustainable development are taking responsibility for their own CO$_2$ emissions. By reducing their emissions, they earn credibility and legitimacy from supporters and enhance morale in the workplace.

While skepticism about the trustworthiness of offsets remains a news feature, some NGOs continue to purchase credits to offset their emissions. Rather than merely expressing dissatisfaction with the muddled state of the voluntary market, they actively promote standards to improve the quality of voluntary emissions reduction credits and spread the benefits of carbon finance to the neediest communities. A few are even in the process of developing their own credits within these frameworks. Their efforts are shifting the debate from simply whether to go carbon neutral to how to pursue neutrality in the most sustainable and just manner.
Resources

Climate Science Reports and Websites

“IPCC Fourth Assessment Report” by the Intergovernmental Panel on Climate Change. Published in 2007 and available online at: http://www.ipcc.ch/.


“Avoiding Catastrophe: Recent science and new data on global warming, Emissions scenarios to avoid catastrophic climate change” by the Carbon Equity Project for Friends of the Earth Australia. Published in January 2007 and available online at: http://www.carbonequity.info/PDFs/Avoidingcatastrophe%20bw.pdf.

Real Climate, a website featuring commentary on climate science news by respected climate scientists at: http://www.realclimate.org.


Calculating and Reducing the Organizational Carbon Footprint


A list of Technical Assistance Providers approved by the California Climate Action Registry is available at: http://www.climateregistry.org/SERVICEPROVIDERS/TA/.


Best Workplaces for Commuters (sponsored by the U.S. Environmental Protection Agency and Department of Transportation) hosts a “Business Savings Calculator” to estimate the financial, environmental, traffic-related, and other benefits of encouraging commuter employees to use public transit and vanpool at: http://www.commuterchoice.gov/resource/calc.htm.

“Switching to Green” by Samantha Putt del Pino for the World Resources Institute. Published October 2006 and available online at: http://pdf.wri.org/switching_to_green.pdf.

Greening households and communities

The SafeClimate carbon footprint calculator created by the World Resources Institute helps individuals and households around the world estimate and reduce their emissions. Available at: http://www.safeclimate.net/calculator.


The International Council for Local Environmental Initiatives (ICLEI) also offers a range of publications and fact sheets through its online store at: http://webstore.iclei.org/merchant.cfm.
Appendix 1: Sample Carbon Footprint Worksheet

A. Scope 1 Emissions (Direct emissions from sources owned by CARE)
   - Fuel Consumption by Generator
     - ________ litres of Diesel x 2.68 kg CO₂/litre = ________ kg CO₂
     - ________ litres of Petrol x 2.34 kg CO₂/litre = ________ kg CO₂
   - Fuel Consumption by Vehicle Fleet
     - ________ litres of Diesel x 2.68 kg CO₂/litre = ________ kg CO₂
     - ________ litres of Petrol x 2.34 kg CO₂/litre = ________ kg CO₂
   - Natural Gas Consumption
     - ________ therms of Natural Gas x 5.43 kg CO₂/therm = ________ kg CO₂

B. Scope 2 Emissions (Indirect emissions from purchased electricity)
   - Electricity Consumption
     - ________ Kilowatt Hours (kWh) x ________ kg CO₂/kWh = ________ kg CO₂

C. Scope 3 Emissions (Indirect emissions from other sources)
   - Business Travel
     - ________ km by short-haul flight x 0.15 kg CO₂/km = ________ kg CO₂
     - ________ km by medium-haul flight x 0.12 kg CO₂/km = ________ kg CO₂
     - ________ km by long-haul flight x 0.11 kg CO₂/km = ________ kg CO₂
     - ________ km by diesel bus x 0.05 kg CO₂/km = ________ kg CO₂
     - ________ km by train x ________ kg CO₂/km = ________ kg CO₂
   - Employee Commuting
     - Emissions data from WRI employee commuting survey = ________ kg CO₂
   - Paper Usage
     - Emissions data from Environmental Defense Paper Calculator = ________ kg CO₂

Calculate the Sum of Emissions and Divide by 1000: ________ Metric Tons CO₂

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48 This worksheet is meant to provide an example of the elements of a carbon footprint. To develop a more accurate methodology, please refer to the calculation tools for GHG emissions from service sector companies and office-based organizations developed by WRI at http://www.ghgprotocol.org. The website features the WRI reports “Hot Climate, Cool Commerce: A Service Sector Guide to Greenhouse Gas Management” and “Working 9 to 5 on Climate Change”, which serve as guidance documents to be used in conjunction with four Excel worksheets: CO₂ Emissions from Business Travel, CO₂ Emissions from Employee Commuting, CO₂ Emissions from Fuel Use in Facilities, Indirect CO₂ Emissions from Purchased Electricity.

49 For more fuel types and measures, see the worksheet “CO₂ Emissions from Fuel Use in Facilities”.

50 The emissions factor determining the kilograms of CO₂ emitted per kilowatt-hour varies according to the source of the electricity. The GHG Protocol worksheet “Indirect CO₂ Emissions from Purchased Electricity” lists emissions factors by U.S. region and by country.

51 Emissions from courier services, shipping, and printing services can also be included in Scope 3.

52 Emissions from courier services, shipping, and printing services can also be included in Scope 3.

53 The total distance travelled by each flight type should be entered. Short-haul flights are defined as less than 500 km, medium-haul are between 500 and 1600 km, and long-haul flights are over 1600 km. For more precise assessments of GHG emissions per flight (taking into account variables such as the type of aircraft, stopovers, and seating class) use the atmosfair calculator at www.atmosfair.com.

54 Emissions factors can vary widely according to the type of train. For example, the emissions factor for an Amtrak train in the U.S. is 0.195 kg/km, significantly more than the United Kingdom Rail’s emissions factor of 0.060 kg/km. Choose the appropriate emissions factor according to the type of train in the GHG Protocol worksheet “CO₂ Emissions from Business Travel.”

55 The survey is part of the GHG Protocol worksheet “CO₂ Emissions from Employee Commuting” and a simpler tool is also available in the document “Working 9 to 5 on Climate Change” by WRI. Find fuel economy averages for nearly every vehicle at: http://www.fueleconomy.gov/feg/findacar.htm.

56 The Environmental Defense Paper Calculator is available at www.papercalculator.org. You can assume each ream of copy paper weighs 5 pounds. Divide the pounds of CO₂ emissions estimate yielded by the Environmental Defense Paper Calculator by 2.205 to calculate the kilograms of CO₂ emissions associated with paper use. Also note that the Paper Calculator’s ‘recycled’ heading takes into account post-consumer recycled content only.
### Appendix 2: Offset Provider Chart

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Note: CA-CP; TCI; WWF

ED
Offset Provider Chart (cont.)

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**Recommendation Key:**
Clean Air-Cool Planet (CA-CP); Co-op America (CA); Environmental Defense (ED); Tufts Climate Initiative (TCI)

**Chart Sources:**


Appendix 3: Survey Questions

I. Questions posed to NGOs:

1. In what stage of the process of pursuing carbon neutrality is your organization?
   a. Considering but not yet calculated a carbon footprint.
   b. Calculated a carbon footprint but not yet reduced emissions.
   c. Reduced emissions but not yet purchased offsets. (Does your organization plan to purchase offsets? If not, why not?)
   d. Reduced emissions and purchased offsets from a provider.
   e. Reduced emissions, purchased offsets from a provider, and considering generating internal offsets.
   f. Reduced emissions and generating offsets internally.
   g. Other ________________________________.

2. What is your organization’s motivation for seeking carbon neutrality?

3. Has an outside firm helped you in the process of pursuing carbon neutrality? If so, which firm? What assistance has this firm provided?

4. If the organization has calculated its carbon footprint…
   a. What calculator did your organization use?
      i. Why did your organization choose this one?
      ii. Do you know the underlying equation of this calculator?
      iii. Did you have any difficulties with it?
   b. What was your organization’s largest source of carbon emissions?
   c. Were you surprised about any of the emissions data revealed in the footprint?

5. If the organization has reduced its emissions (or is in the process thereof)…
   a. Has your organizations developed any policies that cut costs and reduce carbon emissions?
   b. What was most difficult emissions reduction for your organization to make?
   c. Has your organization instituted any changes in data collection and management systems to facilitate the collection of emissions data?

6. If the organization has purchased offsets from a provider…
   a. From which offset provider did your organization purchase offsets?
   b. Why did your organization choose this provider?
   c. Do you know what type of offsets your organization has purchased?
   d. If so, why did your organization choose to purchase these particular offsets?
      i. Did your organization consider specific quality concerns?
      ii. Did your organization consider multiple benefits?
   e. What are the specific accountability standards of these offsets?
   f. How does your organization budget for offset purchases?

7. If the organization has developed/is developing internal offsets…
   a. Why did your organization choose to develop internal offsets?
   b. Through what types of offset projects does your organization generate offsets?
      i. Did your organization consider specific quality concerns?
      ii. Did your organization consider multiple benefits?
   c. What are the specific accountability standards of these offsets?
   d. How does your organization budget for offset generation?

II. Question posed to donor agencies:

Would your agency consider providing additional funding (as a percentage of overhead or a budgetary line item) to support the cost of making projects carbon neutral?