

Global Warming Action Kit

Volume 2



Unitarian Universalist Ministry for Earth
1034 SW 13th Ave., Portland, OR 97205
<http://uuministryforearth.org/>

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Unitarian Universalist Ministry for Earth is an independent organization related to the Unitarian Universalist Association.

Our mission is to facilitate and support the work of Unitarian Universalists, by affirming and promoting the seven principles of the Unitarian Universalist Association, including the seventh: “to affirm and promote respect for the interdependent web of all existence of which we are all a part.” We do this by focusing on the theological, spiritual, and ethical aspects of human values and activities that affect the health and sustainability of living Earth. Our vision is that Unitarian Universalists recognize and embrace the moral imperative to live in covenant with the web of life through personal, congregational, and denominational practices.

As you use these materials, we hope that you will make an opportunity to educate yourself and others about the important mission and work of Unitarian Universalist Ministry for Earth. Please feel welcome to contact us at office@uuministryforearth.org for information about our current programs.

This resource is made possible by the generosity of individual donors and congregations. Please consider [making a donation today](#). Your gift will help UU Ministry for Earth develop additional resources. You may [donate online](#) or send your contribution to Unitarian Universalist Ministry for Earth, 1034 SW 13th Ave., Portland, OR 97205.

Thank you for your commitment to Earth ministry. Working together, we will transform our individual and congregational lives into acts of religious witness, discarding our harmful habits for new behaviors and practices that will sustain life on Earth.

Additional materials and resources are available on the UU Ministry for Earth website at <http://www.uuministryforearth.org>. You are welcome to adapt the materials in this Manual to make it as easy as possible for you to design a curriculum for your congregation. If you use or adapt the materials, please credit the original authors when applicable and reference UU Ministry for Earth in any reprints or adaptations. We encourage you to print sparingly, using recycled paper and soy ink.

In addition, we invite your participation in the UU Ministry for Earth email discussion group on global warming. To join, go to <http://lists.uua.org/mailman/listinfo/globalwarming>.

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THE GLOBAL WARMING ACTION KIT

Volume 2

First edition - June 2007

INTRODUCTION

What a long way we have come in the year since UU Ministry for Earth created the first volume of “The Global Warming Action Kit”! Science has increased both our understanding and our alarm at the crisis of global warming; and nations, state and local governments, and citizens are acting to address climate change. Volume 2 reflects some of the creative determination with which Unitarian Universalists have begun to put into action the powerful Statement of Conscience on the Threat of Global Warming/Climate Change, which was overwhelmingly passed at the 2006 General Assembly of the Unitarian Universalist Association.

The Global Warming Action Kit focuses on action. Here you will find tools created and contributed by UU Congregations all over the continent. Here are ideas for hosting a Global Warming Art Show, organizing carpooling in your church, going on a “Low Carbon Diet”, singing songs, planning worship services, developing resources in your local public library, and much, much more.

HOW TO ARRANGE A SUCCESSFUL GLOBAL WARMING ART EVENT

Notes from Pat McEvoy, UUMFE Regional Coordinator
and active member of UU Congregation of Saratoga Springs, NY

STEP 1. THE DATE

After checking your church calendar, pick two or three possible dates and, especially, with a well-known speaker who will be in demand, give a few months lead time. When inviting your speaker, check whether he or she may be interested in attending the opening of your special art event too- - great if he or she can but not necessary. We were privileged to have Bill McKibben as our guest speaker, but we asked four months in advance, and he lives not too far from us, that may have helped.

STEP 2. THE SPACE

Arrange for a space for your event and again double-check that church calendar! Being a painter who exhibits in the Upper New York state area myself, I knew of a nice gallery which was available during summer months, but exhibit or performance space can be difficult to come by, so be creative. There may be room right at your church, or in a local art center, college, school, library, or office building.

STEP 3. RIGHT NOW START MAKING A LIST OF THOSE WHO WILL RECEIVE A THANK-YOU NOTE FOR ASSISTING YOU IN ANY WAY!!

STEP 4. THE ARTISTS

Once you have the space available, it is time to contact your artists, poets, or musicians. Make it an “invitational”, as artists are pleased to be part of a show for which certain talents have been selected. If you are not an artist yourself, get suggestions from members of your congregation and talk with local galleries, art guilds, or an artist you admire. Decide how many artists and/or performers you will need and make a list somewhat larger. Try to invite artists in a number of media. For “Our Warming World” we had representative pieces in:

- oil paintings
- pastels
- watercolors
- sculpture made from plants from artist's garden
- monotype
- collage
- fabric wall hanging
- large wood & metal sculpture
- small stone & metal sculpture
- wax/encaustic piece
- print
- oil/metallic painting
- acrylic

Artists Ann Larsen, Constance Dodge, Pat Goodale, Robert Goodale, Bev Mastrianni, and

Reena Kondo graciously granted permission for us to share photos of their pieces with you. See [“Art Inspired by the Global Warming Crisis.”](#)

STEP 5. GETTING THE COMMITMENT

Once you have a list of artists, a phone call or e-mail is probably the fastest way of getting a response. Once they have agreed to a date and time on the phone, be sure to follow up. When working with anyone, but especially artists, the name of the game is....FOLLOW UP*FOLLOW UP*FOLLOW UP. So send a confirmation letter right away, but also touch base with them, say half-way there and right near the date. You'll be glad you did!

STEP 6: PUBLICITY

Start six weeks ahead to notify area newspapers of your event. If possible, go there in person and have “copy” prepared. Pictures are usually welcome, too. It can be frustrating dealing with someone from a busy newsroom who hasn't yet heard of global warming (ha!), but when it comes to publicity, the persistent wheel, if not the squeaky one, definitely gets the “grease.” (Either bring publishable photos with you to the newspaper office or invite a reporter/photographer to photograph for you.) Since publicity will not only increase participation in your event, and may result in sales if pieces are for sale, it will keep Global Warming in the public arena in one more way. It is a positive association for Unitarian Universalism as well. Of course you will be making announcements in church.

In addition to newspaper publicity, we created a postcard for the show, and artists and members of our congregation sent them out to their friends and other contacts. The postcard is included here. See [Postcard for Our Warming World Art Show.](#)

STEP 7: GETTING HELP TO HANG THE SHOW

Things are going well, you have an interesting speaker lined up, a space for your event, and artists to fill the space with compelling works! Now you need to secure the services of someone to hang the show. Please don't underestimate the importance of this step! YOU DEFINITELY NEED A PROFESSIONAL WHO HAS DONE THIS BEFORE! IT CAN MAKE A TREMENDOUS DIFFERENCE IN THE LOOKS AND SUCCESS OF THE SHOW IF IT IS HUNG WELL.

It also can be very time-consuming - inordinately so - if you are not used to it. A good plan might be to have a couple of committee members who could do the actual hanging, but with advice and direction from a gallery owner or curator in your area. A last resort would be to find out which of your artists has experience in hanging shows and ask for their help.

STEP 8: HANGING THE SHOW

Set a hanging date and a pick-up date and make provisions for artists to drop off their work ahead of that date. Try to have the hanging date two or three days before the show is set to open, just in case anything goes awry - a curator can have an emergency, or an ice storm can cut the electricity! Notify the artists of both dates. Reminding them as the show approaches is a good way to practice FOLLOW UP!

STEP 9: THE OPENING

Ideally, the show will open in conjunction with your speaker's date, so that, if possible, the speaker can attend the opening. If this is not possible, be sure to use the one event to promote the other! A two-hour reception is less fatiguing for everyone than a longer one, so keep that in mind, whether it be afternoon or early evening.

STEP 10: FOOD

Whenever the public is invited, it is more hospitable to have some food. Check with the venue to make sure what is allowed. In general, simple food is fine - just some fruit and crackers and cider or sparkling water or coffee. Of course it can always be more elaborate if you have bakers of cookies, etc. willing and able in your congregation. Naturally, "Green" food is always appropriate!

STEP 11: SALES

If the art works will be for sale, it will be necessary to have a few typed pricelists around the room for people to pick up. Don't put price tags on the paintings or other objects (this looks tacky) and DO explain if some of the proceeds will be donated.

STEP 12: THANK YOUS

WHEN THE SHOW CLOSES AND WORK IS RETURNED, SEND THOSE THANK-YOU NOTES!!!

SOME FINAL WORDS FROM PAT:

HAVE FUN! AND DO BE CREATIVE. This document just reflects my experience, but we all know you must use the talents you have in your community, AND there are many, many ways to "skin a cat"!

When putting out the invitations for this show, I had no idea what the show might look like. Not that I didn't have total confidence in my artist friends - I did! But it's a somewhat difficult subject, and it might have been easy to have a show that was, well...glum. It was anything but! As you can begin to see even with the few enclosed samples, art has integrity of its own and people responded in a colorful, imaginative way. It was my pleasure to have had this experience and it gives me hope for the future of the Earth.

GOOD LUCK

Pat McEvoy, UUMFE Representative, St. Lawrence District, NY

Art Inspired by the Global Warming Crisis



Progress – Ann Larsen



How Many Tomorrows – Constance Dodge



Noah's Second Coming – Pat Goodale



Sunburst – Robert Goodale

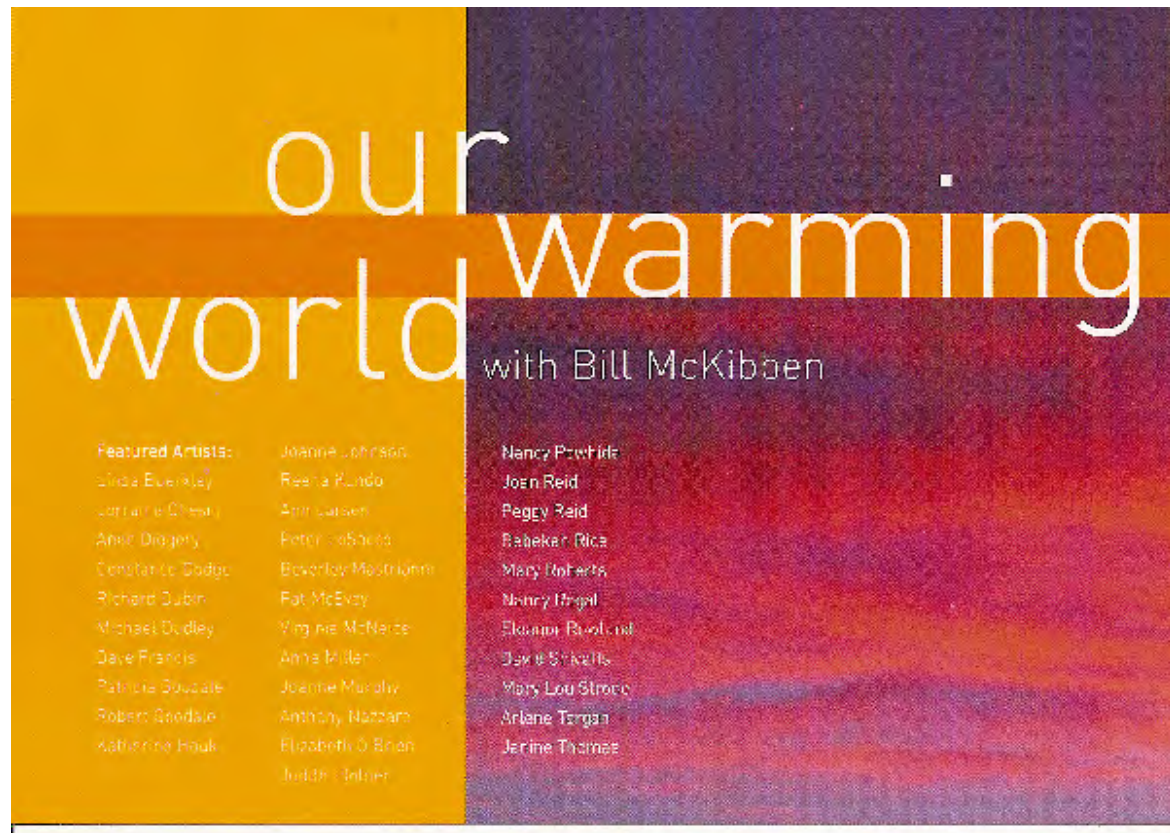


Warming – Bev Mastrianni



We Are The World – Reena Kondo

Postcard for Our Warming World Art Show



Prayer Flags for the Planet

A Community Art Event

First Unitarian Church of Portland



Prayer flags are a traditional Tibetan Buddhist tool for spreading prayers and blessings. Traditionally, the flags are hung on bridges, between trees, or on hilltops where the wind, as an expression of mind and spirit, moves the flags and thus spreads blessings throughout the world. When others see them, the intention to pray and work for the welfare of all beings is increased.

Prayer Flags for the Planet is an opportunity for participants to focus their prayers and intentions to heal the planet. Participants are given an individual flag to decorate, write on, or simply meditate on and to then add to a collective art installation outside the church. To participate:

- *Select a color, and take a moment to reflect quietly on what is important to you about our Earth home. Consider an image, a phrase or prayer, or a wish to which you want to bring positive energy. Focus on the positive result you want to see happen, not on the negative, e.g., "clean air for all beings", rather than "no air pollution".*
- *Decorate your flag with the materials provided. Draw or paint, write a simple message, or use stencils or stamps to convey your intention.*



Planning the Event

Materials

Cotton fabric- blue, red, yellow, white, and green
Hemp or other cord for stringing flags
Paints, markers, pens suitable for use on fabrics
Brushes, stencils, stamps, for images
Protective clothing (shirts, smocks, old clothes)
Newspaper or sheeting for covering tables
Iron and ironing board (most fabric paints are heat-set)



Instructions

Before the event:

- Prepare flags by cutting fabric into squares or rectangles, approximately 8"x12" (your sizes may vary). Sew a 1" hem for the cording to go through on one end. Iron all flags.
- Gather together all fabric decoration tools, making sure that all facilitators understand instructions for use. Stencils, stamps, and other decorative items are very popular, and freehand painting is great!
- Prepare workspace for participants to use paints, etc.

During the event:

- Make sure water is nearby for cleanup.
- Heat-set finished flags with iron if necessary.
- String finished flags on cords and display anywhere. We hung them in tree branches outside the church.

PRAYER FLAGS FOR THE PLANET



A Community Art Project for Healing the Earth

What are Prayer Flags?

Prayer flags are a traditional Tibetan Buddhist tool for spreading prayers and blessings across the earth. They are meant to be placed outdoors by stringing or attaching them to the edge of a roof, between posts or trees, on temples, and other places. Belief is that the wind, as an expression of mind and spirit, moves the flags and thus spreads the blessings throughout the world. When you see them, your intention to pray for and work for the welfare of others is increased.

What do I do?

Prayer Flags for the Planet is an opportunity for participants to focus their prayers and intentions to heal the planet. You will be given an individual flag to decorate, write on, or simply meditate on to add to a collective art installation outside the church. We suggest the following:

1. Select a color, and take a moment to reflect quietly on what is important to you about this Earth home. Consider an image, a phrase or prayer, or a wish that you want to bring positive energy to. Focus on what you want to see happen, not on the negative, eg, "clean air for all beings", not "no air pollution".
2. Decorate your flag with the materials provided, either drawing, writing, using stencils or stamps, to convey your intention.

FINAL EXAM

by Doug Stewart

CAST:

- MOTHER EARTH (ME)
- SAINT PETER (SP)

Both are of an indeterminate Senior Age.

SCENE: Mid-morning at the outdoor Heavenly Cafe, where Mother Earth and Saint Peter enjoy their regular morning cup of ambrosia and exchange the latest Heavenly gossip. However, Peter seems a little nervous this morning. . . a little disturbed and fidgety.

AT RISE: Mother Earth (ME) seems waiting for Saint Peter (SP) to speak. When he doesn't, she turns to Audience.

. . .

ME: Thanks for joining us this morning while my friend, Saint Peter – Pete – and I enjoy our morning cup of ambrosia and catch up on the latest Heavenly gossi . . . ah . . . news. As you can imagine, there's always so much going on here! But I don't know... Pete doesn't seem quite his normal contented self this morning. Hang on . . . let's see if I can find out what's bothering him.

[She turns back to St. Peter] Pete, what's going on? Everything OK up at The Pearly Gates? Enough people passing the Entry Quiz? If I may say so, you just don't seem your usual saintly self this morning.

SP: You noticed?

ME: Of course I noticed. After knowing someone for a few millennia, you begin to pick up things. So again, what's bugging you?

SP: Well, where to begin?

ME: Let's try the beginning.

SP: OK, the beginning. But I wish I didn't have to do this.

ME: I understand – but keep going.

SP: Well, as you know, God just had our regular staff meeting. And there was one particular thing She was very concerned about.

ME: Really? What's that?

SP: You.

ME: Me? Whatever about?

SP: Well, not really you – but whatever is going on down on your Earth.

ME: (*a little nervous*) So She knows already, eh?

SP: No. And that's the problem – She doesn't know. But She knows something is – and, believe me, She's not happy that She doesn't know. After all, God is used to knowing everything.

ME: What tipped her . . . I mean, ah, how did She find out?

SP: Well, for one thing, the Incoming Prayer Center is having to work overtime. Prayers coming in from people all over your Earth needing Divine help in floods, droughts, rising oceans, melting glaciers, new diseases, disappearing . . .

ME: (*still nervous*) I know, I know. So what's the big deal? Unusual prayers come in all the time. You know that.

SP: Not from three mother polar bears and 16 Emperor penguins, they don't.

ME: (*even more nervous*) Oh.

SP: So God told me to find out from you what's going on down there and report back to Her – today!

ME: OK, OK, I can explain everything.

SP: I think you'd better, or you'll probably end up with another Ice Age – or even Continental Drift. God's really not happy!

ME: Let me put it this way: I am sick and tired of the way people on Earth treat each other, Pete. Sick and tired, I say! If they're not bashing each other over the head, they're stabbing each other in the back! They don't take good care of each other, don't cooperate . . . can't even seem to tolerate peace. Right from the . . .

SP: ... beginning?

ME: Yes, the beginning. How 'd you know?

SP: I was there. Remember? God created all the species, and then you filled them with The Mixture.

ME: That's right, I did. Every species. The Mixture.

SP: And do you remember that I warned you about something?

ME: (*innocently*) No, really? About what?

SP: (*not fooled*) I said, "Be careful when you add the testosterone. Don't overdo it!"

ME: (*still innocently*) You said that?

SP: Yes. But you wouldn't listen.

ME: (*admitting reluctantly*) OK. So I thought it would help them with the saber tooth tiger problem. I overdid the testosterone thing with the tigers, too – but it was too late to change 'em.

SP: So, right out of the box, we had Cain and Abel.

ME: Yeah, yeah. No need to remind me.

SP: And from there on it just got worse and worse – didn't it?

ME: Well, I tried to fix it. I thought if I gave them a few challenges, they'd learn to care for each other . . . you know, work together to solve the problem . . . get creative . . . cooperate.

SP: (*knowingly*) And did they?

ME: You know they didn't. I tried the Big Flood. But God told Noah just to take the animals, so almost everybody else drowned and didn't learn anything. Crossed me up completely.

SP: And then?

ME: I tried several plagues and pestilences. The grasshoppers did their thing – or at least until God sent in the seagulls – seagulls! – and crossed me up again. But the people just died or had another war about whose remaining food was whose. Didn't learn a thing.

SP: Frustrating, eh?

ME: No kidding! And then of course they came up with "The War To End All Wars." What a joke *that* was! So I decided to really teach them a lesson and sent in this huge flu epidemic.

SP: And?

ME: And they still didn't learn to work together. Just died by the millions.

SP: I remember. Between the war and the flu, my Gates staff was really scrambling.

ME: So what happened? As soon as they got over the flu, they started World War II!

SP: But you'll have to admit, Mother, humans have found really creative ways to keep my Gates staff employed.

ME: "Employed"? I thought they were volunteers?

SP: Only back in the old days . . . you know, when you only had a billion or so combatants on Earth.

ME: Yeah, that sorta got out of hand, too, didn't it?

SP: To repeat, testosterone will do that – especially among the young. Just can't wait to . . .

ME: . . . OK, OK, I get the point! Next time I'll . . .

SP: "Next time"? There's going to be a "next time"? I'm sure God doesn't know about that.

ME: Well, it's not for sure, so just be quiet about it for awhile, OK?

SP: OK – but what do you mean by "next time"? You're not going to . . .? I mean, without a chance to . . .

ME: No, no, no. I'm giving them one more chance to redeem themselves . . . one more chance to learn to care for one another – all one-anothers.

SP: I knew there was something more up those big sleeves.

ME: Here's my plan. I'm presenting them with the biggest challenge they've ever had to face, OK? I mean, a really big one. Makes my previous challenges look like mere nuisances.

SP: So how long did it take you to cook up this one?

ME: Oh, a couple hundred thousand years or so. But it's worth it, Pete, it really is. You'll just love this one!

SP: So lay it on me.

ME: I'm using all the elements in my whole Earth horror bundle. . .letting 'em go just hog wild! Melting Glaciers, —Endless Drought, —Torrential Rains, —Bleaching Coral, —Rising Oceans, —Wicked Weather—the works, Pete, the works.

SP: Katrina, too?

ME: Of course.

SP: But wild? Won't that . . .

ME: You bet it will! That's why the Prayer Center's lines are jammed! On Earth they're calling it "global warming," or "climate change" – but I'm calling it "Final Exam." This is it, Pete, the Big One. If they don't learn to help one another, cooperate, take care of my sacred Earth elements—if they flunk their final exam—then they're outta here . . . they're history. Finished. Kaput. Gone.

SP: And?

ME: And I'll start from scratch with a brand new species design. And this time, by God, I'll get it right!

SP: Speaking of 'by God,' what am I supposed to tell Her?

ME: Just tell Her they're starting their final exam century—even though there are still a stubborn few that don't even want to admit they're taking the exam. And if they collectively don't pass . . . well, She's right at the top of my call list.

SP: She'll have a lot of work to do.

ME: She's used to it.

SP: I know—but I still don't think She's going to like it.

ME: I'll take that risk. (*SP starts getting up from table*) Hey! where you going? You haven't finished your ambrosia.

SP: [*pauses in his exit*] Up to the Gates' Entrance office. Given your humans' track record, I figure I'll need to recruit a lot more 'employees' to man the Gates . . .

ME: . . . sorry

SP: . . . but just remember, Mother, if there is a "next time" . . .

ME: I know . . .

TOGETHER: . . . “not so much testosterone.”

(SP again starts to exit)

ME: *(turning to Audience and smiling with satisfaction)* In fact, maybe next time I just won't put in *any* testosterone!

SP: *(surprised, stopping his exit)* None?

ME: *(thoughtfully, ignoring him)* Or . . . I could just send them a big asteroid.

• CURTAIN •

Sing Out!

Care for Me



CareForMe.wma

Acknowledgement

Linda Pehlman is the composer of “Care for Me.” She is the Director of Music at the Unitarian Universalist Church of Chattanooga.

Care for Me

I am the fruit. I am the tree.
I am the wave. I am the sea.
Care for me, care for me, care for me.

I am the cloud. I am the rain.
I am the candle. I am the flame.
Care for me, care for me, care for me.

I am the bird. I am the bear.
I am the fish. I am the hare.
Care for me, care for me, care for me.

I am the one. I am the all.
I am the great. I am the small.
Care for me, care for me, care for me.

I am the woman. I am the man.
I am the hope. I am the plan.
Care for me, care for me, care for me.

(Play through verse and sing chorus again.)

*Words and music by Linda Pehlman
Green Sanctuary song for the Unitarian Church of Chattanooga*

Care for Me

Linda Pehlman

G Em Am C G D G

I am the fruit, I am the tree, I am the wave, I am the sea.

Em C G C G Am ^{1. 2. 3. 4.} D7

Care for me, care for me, care for me.

rit. ^{D7} _{15.} G

Power From Above



PowerFromAbove.m4a

Acknowledgements

Dan Berggren's song, "Power from Above" appeared on the Step It Up 2007 website and is one of many wonderful songs on the CD "Fresh Territory" produced by Sleeping Giant Records. For recordings and concert booking information contact:

Sleeping Giant Records
99 Grove Street
Ballston Spa, NY 12020
phone 518-490-1809
dan@berggrenfolk.com
www.berggrenfolk.com

We also wish to thank ***Sing Out!*** magazine for allowing us to reprint the sheet music which originally appeared in the Fall 2006 issue of ***Sing Out!***

Dan is an active member of the UU Congregation of Saratoga Springs, NY.

Link to audio file Recording Power From Above (m4a file 2.7 MB)

Power from Above

Sinners are you ready for a little redemption;
To receive forgiveness for what we've done?
The time has come to break bad habits.
It's time to turn to the wind and sun.

[chorus]

Just a little more power from above,
Just a little more faith, respect and love
For this old earth our only home.
It may take strength to say no to that power from below
But there's salvation in the power from above.

There's a better way than barrels of oil,
There's a better way than lumps of coal,
If we use our heads and work together.
Renewable power that's our goal.

[chorus]

[bridge]

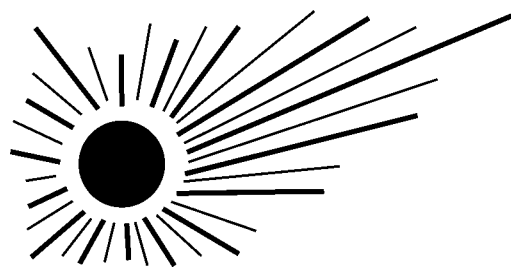
What will we do for a better world?
Get on our knees to hope and pray?
Well, that's not enough unless we change.
The judgment day is every day.

Wars have been fought over who owns what.
Lives have been lost and fortunes won.
But you and I will someday win
'Cause no one owns the wind or sun.
[chorus]

Words and music ©2006 Dan Berggren, Berggren Music (BMI)
from the CD album *Fresh Territory* on Sleeping Giant Records
www.berggrenfolk.com

Power from Above

Inspired by the plausible double meaning "of power from above," New York state-based folksinger Dan Berggren melded the literal and the spiritual by combining a Gospel feel with the yearning to use the natural energy from the sun and wind as an alternative to our planet's dwindling fossil fuels (from down below). The ecological theme continues throughout Fresh Territory, Dan's new album from Sleeping Giant records (#0601; available from (99 Grove St., Ballston Spa, NY 12020; Ph: 518-490-1809; Web: <www.berggrenfolk.com>).



Moderate; ♩ = approx. 100

Words & Music by Dan Berggren
© 2006 Berggren Music / Sleeping Giant Records / BMI

G C G

V: 1. Sin - ners are you read-y for a lit - tle re - demp - tion,

D

to re - ceive for - give - ness _____ for what _____ we've done?

Em C

The time _____ has come to break _____ bad hab - its.

G D G C

It's time to turn _____ to the wind and sun.

G C7 G

CH: Just a lit - tle more pow - er from a - bove, _____ just a lit - tle more

C7 G

faith, re - spect _____ and love for this old earth, our on - ly home. _____

D G

_____ It may take strength to say no to that

C To Coda G D

pow - er from be - low, _____ but there's sal - va - tion in the pow - er from a - bove. _____

G **C** **G** 1. | 2. **Am**
 Bridge: What will we do for a bet-ter world? —
Bm **C** **D**
 Get on our knees to hope and pray? —
Am **Bm**
 Well, that's not e-nough un-less we change. —
C **D** D.C. al Coda
 The judge-ment day is ev-ery day. —
G **D** **G** **C** **G**
 -va-tion in the pow-er from a-bove. Yes there's sal-
D **G** **C** **G**
 -va-tion in the pow-er from a-bove.

Sinners are you ready for a little redemption
 To receive forgiveness for what we've done?
 The time has come to break bad habits
 It's time to turn to the wind and sun

CHORUS:

Just a little more power from above
 Just a little more faith, respect and love
 For this old earth our only home
 It may take strength to say no to that power from
 below
 But there's salvation in the power from above

There's a better way than barrels of oil
 There's a better way than lumps of coal
 If we use our heads and work together
 Renewable power that's our goal **CHORUS**

What will we do for a better world?
 Get on our knees to hope and pray?
 Well, that's not enough unless we change
 The judgment day is every day

Wars have been fought over who owns what
 Lives have been lost and fortunes won
 But you and I will someday win
 'Cause no one owns the wind or sun **CHORUS**





New Words to Old Tunes

Songs for April 14 Step It Up Rally

contributed by Nancy Peters, First Unitarian Society of Schenectady, NY

Where Have All the Ice caps Gone?

(to the tune of "Where Have All the Flowers Gone")

- 1) Where have all the ice caps
gone?
Long time passing/ Long time from
now
Melted into oceans everyone
When will we ever learn?
- 2) Where have polar bears all gone?
Drowned in the oceans everyone.
- 3) Where have all the glaciers
gone?
Melted into rivers everyone.
- 4) Where have all the rivers gone?
Dried up into deserts everyone.
- 5) Where have all the flowers gone?
Wilted in the deserts everyone.
- 6) Where have bumblebees all
gone?
Gone with the flowers everyone.
- 7) Where have all the food crops
gone?
Gone with the flowers everyone.
- 8) Where have all the people gone?
Died of starvation everyone.

9) This is how our world will look
If we don't cool it we'll surely cook.

- 10) Where have carbon emissions
gone?
Step It Up Congress!
Where have carbon emissions gone?
Step It Up Now!
Where have carbon emissions gone?
Banned by legislation everyone!
Looks like we finally learned.

The Answer My Friend

(to the tune of "Blowin' in the Wind")

How many degrees must the
temperature rise
Till carbon emissions are banned?
How much legislation will be voted
down
Before it's the law of the land?
How many people must rise up and
shout
"Our government must take a
stand?"
The answer, my friend, is in your
own hand—
The answer is in your own hand.



If I Had a CFL

(to the tune of "If I Had a Hammer")

1) If I had a CFL I'd shine it in the morning,
I'd shine it in the evening, all over this land.
I'd shine it for carbon cuts, to conserve our energy.
I'd shine it to help save our beautiful Earth,
Air, water and land.

2) If I had a bike I'd ride it in the morning,
I'd ride it in the evening, all over this land.
I'd ride on the bus and train, I'd ride in a carpool,
I'd ride 'em to help save our beautiful Earth,
Air, water, and land.

3) If I had a clothes line, I'd hang it in the morning,
I'd hang it in the evening all over this land.
I'd hang out my socks and jeans, my towels and teeshirts,
I'd hang 'em to help save our beautiful Earth,
Air, water, and land.

4) If I had some local food, I'd eat it in the morning,
I'd eat it in the evening, all over this land.
I'd eat the fresh cheese and fruit, and all those good vegetables,
I'd eat 'em to help save our beautiful Earth,
Air, water, and land.

5) Well, I've got a CFL, and I've got a bicycle,
And I've got a clothes line and good local food.
And I wrote to our Congress to cut carbon emissions,
So they'll help save our beautiful Earth,
Air, water, and land.

Introduction to Global Warming Services

Many congregations are holding Sunday services to reflect on the issue of Global Warming. Some are being led by the congregations' ministers, some are lay-led; and, wonderfully, some are being led by youth. This portion of the Kit offers you samples from all of these. Please use them as inspiration, and, if you wish to use any of them in the whole, please credit the authors/creators fully.

We are grateful to the following contributors:

- ❖ Rev. Clare Butterfield, "An Inconvenient Truth", a sermon for Evanston Unitarian Church, Sunday, January 21, 2007. Rev. Butterfield is the Director of *Faith in Place* in Chicago, www.faithinplace.org
- ❖ Rev. Louise Green, "Mother is Melting", a sermon at All Souls Unitarian, Washington, DC, February 26, 2006.
- ❖ Sally Beth Shore, "In Search of Global Warming's Silver Lining". Sally Beth Shore is a Ministerial Aspirant at Meadville Lombard Theological School. She wrote this sermon as a submission for the UUA's Richard Borden Sermon Award.
- ❖ The Youth Group of **Goodloe** Memorial Unitarian Universalist Congregation, Bowie, MD, "One Small Step for the Youth Group, One Giant Step for Humankind". This service was inspired by the youth attending their District Youth Con "inCONvenient truth". The group lobbied in Annapolis on behalf of UU Legislative Ministry. And, returning home, they created and presented a lively worship service.
Participants included:

Teen Group Anna Pietras Katy Puccio Deanna Beebe Caitlin Megonigal Sean Page Kelson Shilling-Scrivo Martin Ford	Advisors Katie Sullivan Maggie Montgomery Ken Shilling
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- ❖ UU Church of Eugene, OR. Green Sanctuary Leaders. "Global Warming: a collage of words and music on the problem, the spiritual awakening, and the challenge". This service made imaginative use of music throughout. October 15, 2006. The church is a UUMFE Green Sanctuary Candidate Congregation.
- ❖ Jack Harper, PhD, UUMFE Regional Representative, Joseph Priestly District. "Earth to Humans: 'Love me or leave me'". Jack gave this sermon at Tennessee Valley UU Church on Earth Day, 22 April 2007.

“An Inconvenient Truth”

A sermon for Evanston Unitarian Church

Sunday, January 21, 2007

Rev. Clare Butterfield

Director of *Faith in Place* in Chicago

www.faithinplace.org

Reading: From *An Inconvenient Truth* by Al Gore

To this day, if you ask doctors and scientists to describe in intricate detail the exact process by which smoking cigarettes leads to lung cancer, they will give you an overall picture and tell you they know for sure that there is a deadly causative link. But if you push them hard enough on some of the minor details, you will soon reach a point at which they will have to say, “Well, we don’t know exactly how that particular relationship works.”...

I know from this experience [of the death of his sister Nancy from lung cancer] that it sometimes takes time to connect all the dots when accepted habits and behaviors are first found to be harmful. But I also learned that a day of reckoning might come when you very much wish that you had connected the dots more quickly.

Now of course, just as the scientists of 1964 clearly told us that smoking kills people by causing lung cancer and other diseases, the best scientist of the 21st century are telling us even more urgently that the global warming pollution we’re pumping into Earth’s atmosphere is harming the planet’s climate and putting the future of human civilization at grave risk. And once again, we are taking our time – too much time – in connecting the dots.

Sermon:

Probably you already have some idea what today’s sermon is about, don’t you? So if I told you right now that it’s not about global warming you’d even be a little disappointed. It is about global warming, but it’s about a way of understanding the fact of it as a religious responsibility.

Last October some of you saw the film. Some of you saw it before that, or after, in theaters or at home. Through the screenings we made available to congregations we estimate that about 5,000 people saw it in Illinois. There is a profound curiosity at work in the country right now about this film, the inconvenient truth about global warming, and how people in religious communities might respond to it.

I’m both surprised and encouraged by the numbers. But if you did see the film and you paid attention you know that we don’t have a lot of time to solve this problem, and that the changes we need to make in order to solve it are not small. The human and non-human suffering involved in not solving it is immense. We will either experience that suffering directly or we will experience it indirectly – watching others suffer is a lesser form of suffering. If we do not change the way we think about things and interact on this planet things will get much worse here for all of us.

So this sermon is about global warming but it really isn’t about global warming. It’s about how a religious person unpacks and responds to a really big religious problem.

In the movie you may have caught Gore talking about how some people, when they see the data in his presentation, go straight from denial to despair. I think we can all

see how that might happen – especially those of us who saw the film. I live in this data all the time, but I still found those charts with the lines that start to go straight up in the air pretty overwhelming. And the photos showing the retreat of all the glaciers everywhere are undeniable and deeply sobering. I’ve had some messages this January that I can only describe as cries for help – I’ve found people I don’t even know sitting in my office ostensibly talking about how their congregations can get involved, but really talking about how they should deal with their fear.

So what we need to think about as people of faith is how we can learn the discipline of lingering in the middle – between denial and despair. What tools do we need in order to be able to stare the ugly truth right in the face, and go on living hopefully, joyfully, lovingly and responsibly.

What tools do we need to live well and fully with the inconvenient truth?

Well, I would say one tool we need is the truth itself. We need the facts, clear and uncluttered by agenda. We need to cultivate a sort of scientific detachment, that doesn’t ask the facts to be any worse than they are to satisfy a sort of perverse desire for drama – and to prove that our position was the right one. But we also don’t want to approach them fearfully, and try to talk our way past how truly awful the future will be if our behavior doesn’t alter it.

We need a political awareness, as we search for facts in a world that is increasingly filled with information, much of which is politically driven, and, consequently, wrong. We need to know who is paying for research and what kind of tune may be called by he who pays the piper.

We need, to put it in seminary parlance, a hermeneutical strategy. Hermeneutics refers to the study of the messenger – Hermes was the messenger of the Greek gods – it is the study of the relativity of truth. We need to understand that even something as relatively hard as scientific data can be shaped by those who have another purpose to be served than simply delivering the truth. This is how many Americans continue to believe that there is scientific disagreement within the scientific community about global warming when in fact there is none. Because one of the messengers was more interested in creating doubt for a political purpose than in responsibly disseminating the best available data.

We need a hermeneutical strategy that teaches us the sort of relativity of any human-carried truth, but that also allows us to be satisfied with best available data. That’s the best we can do – that’s as much as we can know – we need to be able to be comfortable acting before the final word is in – because at that point it’s way, way too late.

I’m personally pretty comfortable with the relativity of truth. I believe that there is such a thing as truth, but I also believe that it’s pretty hard for a human to know in any absolute sense what it is. But I think the 85% fact is good enough to push me to action as long as I also keep one ear out for new information, in case the correction I’m embarked on turns out to make the problem worse. There’s absolutely nothing wrong with acting this way, from either a moral or a scientific point of view. In fact, in either view, it’s probably going to be as good as it ever gets for us.

But to be religious people responding to bad news we need a lot more than an accurate view of the news. We need a cultivated ability to maintain calmness in the face of that news. This is what the Stoics would have referred to as equanimity in the face of

death – which was a big part of their discipline. They would perform the meditation on death as a daily act of preparation and a mental exercise.

Accepting the inevitability of one's own death fully and calmly is a very important religious task. Once you know that you are going to die, a lot of other things fall into place. It's really outstandingly better to figure this out sooner rather than later. Does this sound like a very strange thing to say? I think that if it does it's only because we live in such a tragically death-denying culture.

To live in this world takes hope and it takes courage. But the hope cannot be the hope of immortality, and the courage is the kind that comes when we know that we do not live only for ourselves but for those around us and particularly for those after us.

Everything in this life takes courage to experience fully. To love someone without holding yourself back requires an acceptance that if you are separated by nothing else you will someday be separated by death. To love the earth our home with clarity and without reservation is to accept the possibility of its death, or the possibility of the death of our species. It is not to hope for that – it is simply to continue to act in the face of the possibility. It is to continue to love in the face of the inevitability of loss.

The gift of life is more enormous when we know it is temporary. We need to decide how we will live in the face of that knowledge.

To consume without the ability to be satisfied, in a manner that sucks the life out of everything including our own souls, is to buy in to the deathlessness of our culture, and, at the same time, to deny death. If we can lose the fear of our own fragility, we may be able to act instead with hope and courage and love.

I have some tools which help me to do this (which is not to suggest that I succeed in doing it all the time). This is my personal toolkit but it may be useful to you to know its contents.

God is one tool in my toolkit. God is a tool in the toolkits of many people, and we all probably mean something a little different when we use that word. It's a pretty giant placeholder, after all. Since I'm a visitor here I'll just say that it is a tool that I use, and leave it to Barbara in some upcoming sermon or ten, to figure out what you might mean by it or whether you consider it useful.

For our purposes this morning, I can just say that the exercise of prayer – of saying what I want in my innermost heart, of speaking to fear, and most importantly, of saying thank you to that which is much greater than myself is part of the exercise of staying on the good side of despair.

That's how I shape the tool – you may use different language or choose a meditative practice rather than the practice of prayer. I would encourage you to be explicit with yourself however, about what you do believe (expressed positively – I'm not really interested in what you don't believe – what you don't believe is not part of your toolkit). And I would encourage the cultivation of a profound sense of gratitude. It's helpful.

And I would encourage you to acknowledge that if the limitations of the world were contiguous with the outline of your particular body the world would be a very small place indeed. So there is something here which is larger than any of us, and larger than all of us, and acknowledging it can be a good tool.

Another tool I try to keep in my toolkit is imagination. I can imagine a reality in which people really do get the message, and in which the majority of people choose to act in the most life-preserving manner – in a manner that is best not for them but for their

children. I can imagine a world in which people learn to love their children more than they hate their enemies. I can imagine a world in which people love their children more than they love their luxuries.

I do not currently live in that world, but I can imagine that the ingredients for its emergence are present in the world in which I do live, and that if enough people of good will find enough points of leverage we can move this world into that one.

So. God and an active prayer life. Imagination.

Another tool that I keep in my toolkit, one that I think is universally useful, is the tool of wonder. When I'm starting to get discouraged, or to focus on the things that are terribly, terribly wrong, I can put my mind and my spirit in a different place by pulling this toolkit out of the box. That might mean walking out to look at the stars at night. A better option for those of you who live where you can actually see them than it is for me. I might choose to head over to the lake, which is a few minutes from my house. Something about all that water amazes me – takes me out of myself, leaves me better.

Wonder is a very good tool for retaining a sense of hopefulness and usefulness – to linger between denial and despair.

Let me tell you a story I heard. It should convey this to you better than my more mundane examples. It was a story about experiments being done at an extremely humane research facility in Iowa on the language abilities of the great apes, in this case some bonobos. Bonobos are our cousins – their genotype is different from ours by slightly over 1%, and they appear to have an innate language ability. But the experiments have involved a set of pictographs – more than 350 of them – each one of which stands for a word in English, and each one of which is on an elaborate computer keyboard. Two of the bonobos in this story were born at the facility, and they have been quicker to learn the pictograph system than their mother, who was born in the wild. There is much I could tell you about these animals, but let me just tell you that one night the mother, born in the wild, was in one building and the two captive born bonobos were together in another, where the woman who has conducted the experiments was also present. The mother started howling from her room down the way – a strange howl that the scientist hadn't heard before. The son, captive-born, responded to the mother's howls.

The scientist turned to the third bonobo and said "what are they talking about?" The bonobo pictographed back, "dogs." "What dogs?" asked the scientist. "Bad dogs at crisscross" signed back the bonobo. Crisscross is a pictograph which stands for a place on the reserve.

The scientist sent a staff member out to crisscross to see what was up. There was a pack of wild dogs there, which no human had yet discerned but of which the apes were fully aware.

Now this means that the captive-born bonobos speak at least two languages, depending on whether you want to count the pictograph system as English or something else. They speak bonobo – whatever communication was going on between mother and son it was in a language that the mother came in from captivity speaking – and it translates into pictographic symbols and English - English which the bonobos understand when it is spoken to them.

When you're feeling as if there is no hope in this world and no reason to redeem it, I want you to remember this story, or some other story that works for you the way this one does for me.

For me this story reminds me that we live in a world of fabulous complexity and inexpressible richness. It reminds me that there is life here in such diverse forms, and that our intelligence is so far from unique that our cousins the bonobos can translate their conversations for the benefit of those of us who have not yet learned to understand their language although they have learned to understand ours.

It reminds me as I stand outside and look at the stars, that as far as we know there is precisely one planet in the entire universe on which this flowering of life of such complexity and diversity has ever taken place. And that our ability to witness it and to be part of it for any length of time at all is the pearl of great price. It is the most valuable thing we possess, though we possess it relatively briefly.

Wonder is a tool for living in the reality of our circumstances but retaining hope.

God, imagination, wonder. I take the time to think about each of them, to engage with each of them as a religious practice because it keeps it allows me to stay where the work is done - once you know the facts and before you slide into believing that nothing can be done about them.

What tools are in your toolkit? Meditation, walks in the woods, music, laughter, imagination, whatever your tools are, cultivate them and keep them where you can find them. Don't let them get rusty for lack of use.

These tools are how people in the religious community live in the world with hope and cheerfulness and vitality, between denial and despair. With this kind of religious discipline we can accept what we need to accept – and accept it quickly – and then turn our hand to doing what needs to be done about it. We may be too late, and we may be too small. But if we live with reference to our toolkit neither of these would excuse us from acting to make things better.

Imagine a better world. Imagine, if I may say so, a world in which this congregation is heated and cooled by the temperature of the earth, through a geothermal replacement for your aging boilers. Imagine a world in which you are presented with a choice for something better than the ordinary and you pull yourselves together and do what you need to do to choose it. Face the gap between that world and this one with hope and with courage. Do the things you know you can do – they could make a difference. Hope that they will. And linger your whole life somewhere between denial and despair. That is where the work of the world is done.

Mother is Melting
Rev. Louise Green
All Souls Unitarian, Washington, DC
February 26, 2006

Text Reading: From The End of Nature, Bill McKibben. Anchor Books, 1990.

The idea of nature will not survive the new global pollution—the carbon dioxide and the like...we have changed the atmosphere, and thus are changing the weather. By changing the weather, we make every spot on earth man-made and artificial. We have deprived nature of its independence, and that is fatal to its meaning. Nature's independence is its meaning; without it there is nothing but us. (p. 58)

If nature means...great joy at fresh and untrammelled beauty, its loss means sadness at man's footprints everywhere. But, as with the death of a person, there is more than simply loss, a hole opening up. There are also new relationships that develop, and strains and twists in old relationships. And since this loss is peculiar in not having been inevitable, it provokes profound questions...(p. 70)

I'm going to speak personally and honestly today about what I sense might be the experience of a larger group. First confession: I am not a person who has been on the front lines for environmental issues. There are many folks in this congregation today who have more knowledge, more experience, more credentials to be giving this sermon. I am in what we could call the mushy majority, the larger group of us who know that the 7th principle, the interdependence of all things, is important and yet we maintain our distance. We try to recycle, we love the ocean and the mountains when we get there, and we are really glad someone else is working on this. We are the ones that the most passionate among us are trying to awaken.

So this morning I am preaching as one who has experienced a recent epiphany on a large and complex issue, global warming, and as one who now believes it matters very much how we respond. This leads to my second confession: I used to see global warming as the rather remote field of scientists and the "environmentalistas," the ones who inspire fear in me if I toss my plastic bottle in the trash or use styrofoam. My environmentally aware actions to this point have been as a guilty child responding to the strong voice of a disapproving mother: feeling I should be a better person, sensing I should pay more attention, knowing it's hard to focus on a series of questions that just might change my life. I suspect that I am not alone, that many of us who work hard for justice in other realms simply let this one slide.

I have also been a city dweller for decades, moving as an adult from the San Francisco Bay Area, to Chicago, Boston, New York and now D.C. I say this to admit that I have been always on the edge of nature. I visit wilder areas with true joy, as a hobby, and then return to cultivated parks. In urban areas I have been concentrating on people, thinking about issues organizing and political power. I experience the planet when I go to Rock Creek in D.C. with our dogs, or more deeply when I go on yoga retreats in Western Massachusetts in various seasons for many years now. Yet all around me, all around us, Rock Creek Park is changing, the Berkshires are changing—everything, every single and interconnected thing is changing.

I'm not going to try to convince you of that---the evidence is overwhelming, and you have a wonderful flyer that lays out the facts, thanks to our own resident experts Kevin Rosseel and Heather McGray. In the U.S. we have this strange problem of debating the obvious fact of global warming and climate change, something acknowledged by the vast majority of the rest of the world. Here we have the

actual suppression of information on global warming for election cycles, as was just in the news, the silencing of scientists at NASA who utter uncomfortable words. This is about power, and the oil industry, and winning elections—plus a peculiar pattern of thinking in the Bush administration, which seems to go like this, “if we don’t acknowledge it, it won’t be true.” But this phenomenon is known, is quantifiable, and sound minds have tracked this scientifically for over a hundred years. One entire century. As I see it, the challenge is this: will the issue of global warming ever move inside us, move our souls, move us to an actual change in consciousness? Will we get this issue, so vast and so complicated, to move from our heads, to our hearts and spirits?

Way back in 1989, Bill McKibben wrote his classic book, The End of Nature, and what he cites has only gotten more severe. I had the joy of reading the book fully last weekend while I was visiting Chincoteague and Assateague Islands in Virginia. The force of McKibben’s writing feels different when you are visiting a national seashore and a wildlife refuge. Last weekend I saw the potential loss up close. I walked on the beach that will be covered by rising and warming seas and collected shells. I marveled at the coloring of exquisite birds that will no longer have a place to nest and raise young. I heard the waves that move the sand, water that etches away the barrier islands. I smelled the fragile marsh wetlands, already endangered, on the way to extinction. This book, The End of Nature, concentrates on the feeling of loss, the quality of change, sings a lament, which sounds as keening, not just facts and statistics. I grieved while I read it, grieved that, while I was paying attention to other things, the world around me was shifting shape.

This planetary change will be so complex, so much an endless ripple effect of interconnected possibilities, that it is impossible to get a sense of what global warming will mean. Literally incalculable loss is occurring. In fact, McKibben writes eloquently about how we can’t predict, can’t scientifically evaluate the future anymore. All bets are off, because the atmosphere has changed; therefore the weather has changed, therefore the planet has changed. All our models, our weather histories, our understanding about how seasons used to work in various parts of the planet, are suspended. We don’t know what is coming.

Great Waters, a beautiful book by Deborah Cramer, creates another portrait of one complex piece of this much bigger global warming picture. Cramer tells the story of Atlantic, as she names the 32 million-square-mile, 12,000-foot deep universe of water that we know directly to our East. She drops the article, *the* Atlantic, because she feels it creates a false distance, the tendency to regard the ocean as something out there, away from us. Instead she wants to convey a present sense of living Atlantic, part of us. As she puts it,

“a possible way to see Atlantic is to see beyond ourselves, to let the lines of our own self importance fade. Then, perhaps, each of us can hear the water resonate and sing. Hearing the voice of the sea, we may come to understand how we humans are but one among many species, inextricably linked to this mysterious, watery place. (p. 18)”

Cramer writes about the childhood experience many of us share, lifting a conch shell to our ear, listening for the sound of the ocean. We do hear waves, but as children don’t understand that it is our own body rhythms that are sounding. She connects this to our knowledge that Atlantic is changing, has already shifted:

Will the web unravel? Will we rip it beyond repair? It matters a great deal if gases we cannot taste, touch, see, or smell build up in the sky, causing the meadows of the sea to fade away, seabirds to disappear, and fisheries to decline, for our own lives may be intimately, critically connected to other life...holding the shell to my ear, listening, I believe I hear the rush of surf hitting the shore, the crash of breaking waves. It is a universal fantasy, shared by every child

ignorant of the facts of science, but it is also a truth. In the voice of seashells, in the echo of the blood rushing through our veins, the waters of life, the sea, are singing.
(pp. 42-43)

Here's another reason she looks at Atlantic in order to get a snapshot of this kaleidoscopic issue of global warming: water covers two-thirds of the planet. Terrestrial habitat is only a small thin skin stretched across a vast body of water, as Cramer puts it, and almost the entire biosphere, 99.5% of life on earth, actually belongs to the sea. This is difficult to imagine and comprehend, so let's bring it back to our human bodies and where we live. By the year 2020, as much as 3/4 of the earth's population may reside within 40 miles of the seashore. At this exact moment in time, millions of people worldwide are an endangered species in their current habitat, because the warming rising seas are going to cover their homes completely.

We also know is that these human neighbors are largely what we call the Two-Thirds World-- people of color, poor and rural people, people who do not have other places of easy retreat. If we need to bring this home, put human faces on this story, we have some shocking pictures right at hand. When Hurricanes Katrina and Rita hit the U.S. Gulf Coast last year, we saw who suffered most. When a warmer sea created a great mixing cauldron for a fiercer storm, we witnessed with horror the covering of a region with water. We saw who got out, and we saw who stayed trapped. We saw who had cars, and we saw who could only sit in the Super Dome, grab a rare rescue boat, or sit on the side of a highway for a bus that never arrived.

What we saw offended and outraged, as it should. For we know poor people suffer the most in this country and worldwide. In the Gulf Coast we saw African-American New Orleans people, immigrant Latino workers in Mississippi, rural white folks in trailers, and the remnants of decimated Native American tribes--*they* all suffered most. One region, in one country, in one part of the globe...yet this disaster will play out for decades for every living creature in the area, each intricate ecosystem.

The awakening, the epiphany, to which we are all called is this: *there is no global warming "out there," and us "in here," safe in our sanctuary, safe in our homes.* We are all inextricably linked. When we value most our sprawling industrial development and the easy affluence of our One-Third World, then many suffer. When we put only our human life in the center of our consciousness, many suffer.

Bill McKibben describes it this way:

*"The idea that the rest of creation might count for as much as we do is spectacularly foreign, even to most environmentalists. The ecological movement has always had its greatest success in convincing people that we are threatened by some looming problem—or if not threatened directly, then some creature we find appealing, such as the seal or the whale or songbird....but what if we began to believe in the rain forest for its own sake?...people have begun to talk of two views of the world—the traditional, man-centered—anthropocentric-- view and the biocentric vision of people as a part of the world... (p. 174, *The End of Nature*)*

Susan Griffin sings a biocentric vision powerfully from another perspective, moving from water to land, from Ocean to Earth:

We know ourselves to be made from this earth. We know this earth is made from our bodies. For we see ourselves. And we are nature. We are nature seeing nature. We are nature with a concept of nature. Nature weeping. Nature speaking of nature to nature. (p. 25, *Earth Prayers*, Elizabeth Roberts, Ed.)

The interconnections that we reflexively lift up in worship liturgy, celebrate in beautiful song, pay annual lip service to on Earth Day, are powerfully, terribly, awesomely true. We will live and die together, one vast web of global proportions, made of water and earth, made of flesh and bone and blood, made of the same substances as found in stars and other far reaches of the galaxy.

Let us not respond to the reality of global warming, of vast planetary change, out of guilt or duty, as if our mother is telling us what to do. Let us respond out of grief, that our planetary home, our intricate Gaia organism, our Mother Earth is melting. We are all, every one of us, experiencing profound loss: the clueless and the knowledgeable, the complacent and the passionate. Our hope for healing will be in direct proportion to our individual desire to grow into a larger ecological self. We must deepen our understanding of a world of interconnection, an awareness that may move us individually and collectively to make sufficient change.

To confront global warming, we need a shift in consciousness itself. May our grief bring us home to Mother Earth, and in that homecoming, move us to act with urgency and clarity, for the sake of serving all. Amen

In Search of Global Warming's Silver Lining

Sally Beth Shore

Ministerial Aspirant

Meadville Lombard Theological School

On December 14th 2006, the island of Lohachara disappeared completely beneath the waves of the Indian Ocean. Its 10,000 inhabitants, arguably the world's first climate refugees, were resettled on a neighboring island. At least 20 inhabited islands in India alone, home to 70,000 people, are expected to submerge in the next decade as the sea rises in response to global warming. Later that same month, scientists reported that a forty-one square mile chunk of is 3000-year old ice shelf had broken off of a Canadian Island in the Arctic Circle. 2006 has the distinction as having been the hottest year on record in the United States, about 2 degrees warmer than the average of the last 100 years.

There is a human tragedy of biblical proportions looming. For years, we have heard warnings about the climate crisis; now there is consensus that it is upon us. The architects of this tragedy are we. In fact, one of our Unitarian Universalist hymns reminds us "all are architects of fate." Interestingly, I discovered that song just after listening to a speech by William McDonough, the revolutionary green architect who Time Magazine named a hero for the planet a few years ago. Mr. McDonough observes that humans by nature are creators and designers. If design is the first signal of intention, as he says, then what is our intention in the world today?

"If our goal is to destroy the world -- to produce global warming and toxicity and endocrine disruption -- we're doing great. But if the goal isn't global warming, [then] what is? I want to crank the wheel of industry in a different direction to produce a world of abundance and good design -- a delightful, safe world that our children can play in.

"It's time for a new design assignment."

The 2006 General Assembly of the Unitarian Universalist Association issued a Statement of Conscience On Global Warming, outlining not only the scientific and ethical grounds for concern, but specific responses for us as people who honor and celebrate the interconnected web of life. Between that and "An Inconvenient Truth", I'm going to assume that you are well aware of the bad news of the Climate Crisis. There's plenty of it. So I'm going to skip that and talk about the good news.....

Studies published last year showed that Greenland's ice cap is actually melting in response to rising temperatures at a rate far quicker than scientists had originally predicted. So, enterprising Greenlanders have now opened a beer brewery that uses the meltwater from Greenland's icecap. It's being marketed with the slogan "taste the purity of ancient ice." Now see, there's a silver lining!

But seriously, I imagine that many of you have experienced crises or difficulties that later turned out to be blessings, or at least redeeming aspects. A story of mine is from seven years ago, when I became very ill. After nearly a week of being bed-ridden with high fever, agonizing aches, and mild hallucinations, I finally dragged myself to a doctor, which was very unusual for me as I was extremely doctor-phobic at this time in my life. I was diagnosed with tick fever, and, after a round of antibiotics I was fine. But while I was there, the doctor looked over my records and, seeing that it had been years since my last physical, insisted that I make an

appointment for a pap smear the following week. Well, it turns out I was a step away from metastasized cervical cancer, which was eventually successfully treated. Of course, if I'd never been so sick with tick fever I would not have had those pap smears, and who knows, I wouldn't be here today. And so I acknowledge a debt of gratitude for the tick, the fever, and that overbearing doctor. Had I been able to see this possibility, it's probable that I would have made it to the doctor a little sooner! In my case that illness—painful as it was—was indeed a blessing.

So here's the good news: blessings await us as a result of this crisis. Global warming has at least four silver linings. I call them the Hammer, the Uniter, the Muse, and the Calling.

What if Global Warming is a Hammer?

A hammer is something that forces action. In legislation, there are “hammer clauses” that prescribe consequences if action is not taken. Global Warming imposes serious consequences if action is not taken.

Once upon a time there was a small planet that had everything—abundant life, clear waters, verdant landscapes, beautiful sunsets, incredibly creative and resourceful wildlife, especially its humans, who had developed language, writing, and tools. However, unintended results of this creativity began to pop up everywhere. The streams weren't so clear anymore and neither was the air. Toxic pollution was widespread, and entire species of life were rapidly disappearing off the planet as a result of human endeavors. Informed people made a little progress in telling others how human activity was ultimately destroying itself by its disregard for the environment from which it grew. But, the vast majority of people either remained ignorant of the problems or were (sometimes understandably) more concerned with other things. It was hard for most people to have a real grasp of the gravity of the problems in the face of just trying to get through another day, the needs of their loved ones, and the urgencies of their own lives. But one day, there came a problem that was so big, so seemingly intractable, and its effects so alarming that it got more and more people's attention. Many people noticed that summer was hotter and spring came earlier and fall came later. At first people were skeptical, and many denied that anything but natural forces were to causal. But slowly, as science corroborated and amassed more evidence, people realized that the consequences might actually be rapid and painful. Very painful. In fact, increasingly people began to see this problem as the most worrisome threat facing humanity, because a major warming of the climate boded deep and disparate consequences all over the globe. Nearly all of humanity's existing ills—not just environmental degradation, but hunger, disease, war, stood to be made worse by this problem. And so at last, seeing no other option, the people got to work with a sense of zeal and urgency and did what needed to be done.

As if air pollution, acid rain, soil contamination, and species extinction weren't enough in themselves, along comes global warming to confound these and add to our many social ills. It's downright inconvenient. But here is a silver lining: those same actions that are needed to combat global warming will also mitigate if not solve most of our other environmental problems, since so many are linked to the mining, transport, and combustion of fossil fuels. When we move to a society based on efficiency and renewable energy, we will no longer have an asthma epidemic. People living in the mountains of West Virginia will no longer see the land literally blown up around them to recover the coal lying beneath. We will once again be able to eat fish

species that today are contaminated with mercury as a result of power plants. In my hometown of Asheville, we will be able to see our beautiful mountains every day.

A hammer can be a very useful thing, in the hands of the right people.

What if Global Warming is the Great Uniter?

We are all in this together! The very fact that global warming is a global problem means that everyone is responsible. Those of us in the industrialized world and especially in the United States owe the world leadership and commitment since we have contributed so much to the current atmospheric concentrations. Even if we don't all share equally in responsibility, we clearly have high common interest in solving the problem. Like nearly any other societal problem you can name, the poor stand to suffer more. But all of us around the globe stand to be affected, perhaps are already being affected, by higher temperatures, increased incidence of tropical diseases, higher intensity storms, species extinction, agricultural disruption.... But it is precisely the global dimension of global warming that may be the redemption here. We all stand to win or lose together on this one like never before. They say that there is nothing like a common enemy to unite people.

And thanks to our 21st century communications systems, we have a marvelous ability to create team around this issue. People around the world can share, inspire, create, and reflect on the best strategies and methods. We can be aware of the constraints we face in our various societies and work together to neutralize them.

To be successful in overcoming this challenge, we will learn that we can no longer afford blame ("if only those **other** people would stop being so wasteful"), irresponsibility ("I'm not causing this problem by myself") or despair ("there's nothing we can do about it.") Combating global warming calls for operationalizing the Unitarian Universalist principles of human worth and dignity, social justice, acceptance and compassion. For it is not just in our actions, but also in our being, that our hopes for one world community can truly become reality.

So I believe global warming is a force that will bring people together. Indeed it already is. Every day new and surprising partners in this crusade appear: this past fall California Governor Arnold Schwarzenegger signed a bill putting the most extensive carbon dioxide caps in the nation into effect.

Rev. Richard Cizik is the vice-president for political affairs of the American Evangelical Association; he had been a strong supporter of President Bush until breaking with the administration in 2005, and has gone on to become one of Washington's strongest supporters of an aggressive policy to deal with global warming. He says,

"The climate change crisis that we believe is occurring is not something we can wait ten years, five years, even a year, to address. Climate change is real and human induced. It calls for action soon. And to deplete our resources, to harm our world by environmental degradation, is an offense against God. That's what the Scriptures say."

Therefore, if we are to be obedient to the Scriptures, there is no time to wait, no time to stall, no time to deliberate.”

Reverend Dr. Gerald L. Durley is the Sr. Pastor at the Providence Missionary Baptist Church in Atlanta. He writes:

“So, what does all of this mean to an African-American pastor in Atlanta, Georgia, who is concerned every day with the elimination of poverty; curtailing homelessness; improving health care; decreasing unemployment; lessening teenage pregnancy; curbing violence; eliminating racism; and trying to assist people through another day?

“It became crystal clear to me... that environmental concerns must become an integrated, active part of the life-sustaining messages in the African-American community. These essential messages must be mandatory teachings throughout all faith traditions, if we are to survive.”

Working to solve the global warming can only be a catalyst for creating unity. What are the possibilities for peace, cooperation, appreciation and tolerance that will emerge as we work shoulder to shoulder on this great challenge? Global warming could just be the Uniter of Humanity we’ve been waiting for.

What if Global Warming is A Muse?

They say that necessity is the Mother of Invention. Global warming is at once a technical and social challenge. What new heights of creativity will we achieve by solving this problem? And not just of generating energy, but of planning, building, governing, living? It’s clear that as we grapple with the challenge of Global Warming, we will be doing some major redesign work on ourselves.

In 1969, early in the Apollo 13 mission to the moon, an explosion occurred, crippling the spacecraft and ending its hopes of a lunar landing. Instead the mission became to get the 3 astronauts safely back to earth. To save power, the crew went in to the lunar module part of the craft while they continued the trajectory around the moon, which, it was hoped would give them enough of a boost to get them back to earth. On the ground, it was realized that carbon dioxide levels inside the Aquarius were building up to dangerous levels as the scrubbing filters exhausted their capacity, which was meant to be for 2 people for 2 days, not 3 people for 4 days. There were other carbon dioxide filters on board command module, but, of course they were square, and the assemblage on the lunar module called for round ones. On the ground, this design assignment was given to a team of engineers: “figure out how to get this (the square filter) into this (the round apparatus.) Here’s a box with everything available on board the spacecraft. You have fifteen minutes.” Not one of those engineers said “we can’t do it.” Not one of them said, “There isn’t enough time.” Not one of them said, “That’s a shame, its too bad.”

And what is the difference, between our assignment and theirs? We have not a box, but a whole globe of resources to use as we develop solutions and strategies and solutions to reduce carbon dioxide and global warming. But, even more importantly, here is a planet full of talented, creative humans to work on it.

There is already evidence of a new creativity being spawned: hybrid cars, fuel cells, the world café, compact fluorescents, and green development. Bill McDonough, the architect I referred to earlier, has been contracted by China to design seven new ecologically sustaining cities. My husband's company recently installed one of the largest solar hot water systems in America on the roof of a North Carolina hotel. In my hometown, citizens are negotiating directly with the power company to reduce the community's electricity consumption and thereby avoid construction of a new generating plant.

Global warming could be a muse that inspires incredible ingenuity.

What if Global Warming presents a Monumental Calling?

Who is called, who will be called to accept this "new design assignment"?

Perhaps the problem that threatens humanity more than global warming is a lack of vocation in the human soul. I believe it is because of this yearning that in the West we consume such inordinate amounts of the Earth's abundance and yet, it seems so many of our people are struggling materially, spiritually, and emotionally. We have brothers and sisters who believe their lives to be without purpose or value, and are easy prey to addictions and self- or other abuse. The rise of religious extremism, the recruitment of youth into armies, the profusion of youth gangs are some of the more extreme examples of the way that our urgent need to find purpose to shape our lives is manifested.

And while there are so many needs in this world, so many demands for transformative action, there are still so many, able-bodied and well off, who remain unengaged. Albert Sweitzer said, "the only ones among you who will be really happy are those who have sought and found how to serve." But until you are motivated, until you find a cause and have faith in your ability to contribute to it, there is no engagement. Global warming calls us into sure and noble service for the web of all life. It is a purpose that can put fire in our eyes and joy in our hearts.

Last spring I had the privilege of teaching introductory environmental science to inmates at Western Youth Institute in Morganton. These 18-21 year-olds, unsurprisingly, had almost no knowledge of environmental issues at the outset of the class. As you might imagine, these kids come from pretty discouraging backgrounds. Justin was one of the brightest of the bunch, smart-alecky and confrontational. After initial skepticism of the science I was sharing, he easily became despairing, saying, "Nobody knows about this stuff—it doesn't matter what we do—we are doomed." He polled 70 of his fellow inmates about their knowledge of global warming, finding that only 15 % had heard the term. He was scheduled for release the day after the class ended. The last thing he told me was, "I'm going to Florida to start over. I hope to find work in the solar energy industry there."

Over the course of that class I saw in every one of those young man the potential to be a crusader. I only had a short time with them. I don't know where their lives will take them. But even in that short time, they heard the calling. You see, it is precisely the huge scale of this climate crisis that makes it so alluring to the hero in each one of us: a cause big enough to devote one's life to. Every person, every action, every solution, is needed. Whatever scale you are called to work at—whether it be individual lifestyle changes, policy advocacy, innovating

technologies, or planning sustainable community structures, Humanity and indeed much of life on earth is imperiled. Heroes for the planet, report! We need six billion of you.

This beloved community is called to greatness by global warming. To those of you who have been called to this work for years, even decades, I acknowledge you and remind you that your work has not been in vain. More and more of us are joining you. Pollsters found that 58% of those voting in the most recent elections said global warming was an important factor in who they voted for. Those of you who are more recently learning about global warming: now is the time. A grand and heroic cause beckons -- engage if you hear the calling.

None of this is to say that there aren't also grim possibilities of suffering, destruction, and harm to life on our planet posed by global warming. But equally real are the responsive, creative forces at work in nature and us. I suggest this is our unique contribution as people of a free religious faith. Let this then be our mission: not to stoke the fires of fear, but to create irresistible engagement with a vision of a world shaped by this powerful Hammer, Uniter, Muse, this Calling. Or whatever silver linings you envision. These possibilities and more await us.

Our 2006 Statement of Conscience closes thus: *“Given our human capacity to reflect and act upon our own lives as well as the condition of the world, we accept with humility and determination our responsibility to remedy and mitigate global warming/climate change through innovation, cooperation, and self-discipline. We undertake this work for the preservation of life on Earth.”*

We are called by our denomination, our principles, our common sense, and by our love to create a world that works for everyone. We did not ask for the challenge of this climate crisis, but here it is. We are the ones who get to respond.

The lead flight director of Apollo 13 was an amazing human being, a man named Gene Kranz, who tirelessly led the team of hundreds of technicians on the ground trying to bring the crew home. At six days after the launch, the astronauts have survived limited food, water, heat and the carbon dioxide crisis, but there is still great uncertainty as to whether the capsule has been too damaged to survive reentry into the atmosphere. A NASA official, ruminating on the political fallout of the abandoned mission, laments, “This could be the worst disaster NASA's ever faced!” To this, Gene Kranz replied:

“With all due respect, sir, I believe this is going to be our finest hour.”

Amen.

YOUTH WORSHIP

One Small Step for the Youth Group, One Giant Step for Humankind

Goodloe Memorial Unitarian Universalist Congregation, Bowie, MD

Participants: *Teen Group*

Anna Pietras

Katy Puccio

Deanna Beebe

Caitlin Megonigal

Sean Page

Kelson Shilling-Scrivo

Martin Ford

Advisors

Katie Sullivan

Maggie Montgomery

Ken Shilling

Preludes:

Global Climate Songs from Step It Up 2007:

http://stepitup2007.org/userdata_display.php?modin=50

Trash this Planet Environmental Song Temperature Rise

Look Out - Here comes the train House of Trouble

Endless Summer High Water Rising

Introit: "We are the Youth Group" *Teens*

Everywhere we go

(Everywhere we go)

People want to know

(People want to know)

Who we are

(Who we are)

So we tell them

(So we tell them)

We are the youth group

(We are the youth group)

The mighty, mighty youth group

(The mighty, mighty youth group)

Hey Goodloe!

I like the things you do.

Hey Goodloe!

If I could I would be you.

You're the one and only faith.

With no specific creed.

You know how to take religion and make it GREAT!

UU Faith, it's more than good, it's GREEAT!

Welcome and Announcements

The Goodloe youth group is leading the worship service today. We want to share our views about Global Warming and how our faith inspires us to take action. We ask you to join us in worship.

We welcome you to this place, which we love and tend with care.

We ask that you share our concern for truth and goodness about the earth.

We speak freely, fearlessly, and faithfully about things that matter deeply to us.

We ask you to listen to what we say and to use “green” practices in everyday living.

We welcome your support as Global Warming affects all people of all faiths.

We welcome those who might find encouragement in our fun approach to this serious topic. May you find strength for daily living from our worship together.

Chalice Lighting

Opening Words #550 “We Belong to the Earth”

Hymn: This Little Light of Mine

This little light of mine...it's the florescent kind.

This little light of mine...it's the florescent kind.

This little light of mine...it's the florescent kind.

Florescent kind, florescent kind, florescent kind.

Everywhere I go, I going to make it GREEN.

Everywhere I go, I going to make it GREEN.

Everywhere I go, I going to make it GREEN.

Make it green, make it green, make it green.

Time for All Ages: Grover and the Environment

“Grover's 10 Terrific Ways to Help Our Wonderful World” (A Sesame Street Book)

Written by Anna Ross, illustrated by Tom Leigh, Random House, 1992. ISBN 0679813845

Congregational Round (to the tune of Row, Row, Row Your Boat)

Change, Change, Change the Bulb

Listen to my Pitch

From Incandescent

To Florescent

Time to Make the Switch

Offertory

Song: Soak up the Sun

Joys and Concerns

TEENS SPEAK OUT – Warming is Global

(Editor's note: The teens dressed appropriate to their global parts: parka hoods, sombreros, penguin. They wore decorated signboards for the directions.)

Speaker 1: We want to share our view of Global Warming with you. We are concerned about the changes in the climate. We have attended youth conferences on Global Warming. We have lobbied in Annapolis for the Clean Car bill. We have seen the movie – An Inconvenient Truth... and we are frightened by what is happening. The canaries of global warming are dying. By burning FOSSIL FUELS, we are creating an atmosphere of DINOSAURS. We hope that we can make a difference and stop global warming.

Speaker 2- In the Center

In Africa, the famous snowcap on Kilimanjaro has been disappearing for 30 years. It will disappear completely within 10 years. And as glaciers disappear, rivers will dry up and many people will lose reliable sources of drinking water. Along the equator, people are cutting down trees in the rain forest. Instead of planting trees in the rain forest, they are burning trees and adding carbon dioxide to atmosphere. As we lose more and more trees, we **are** losing rain forests that provide 20% of our oxygen. Because of warmer waters and greenhouse gases, coral reefs are dying. With fewer coral reefs, there will be less fish.

Speaker 3 – The Arctic Regions

The arctic is warming by 7 to 12 degrees when the average temperature rises 1 degree. As the polar ice sheet melts, the ice becomes dark water, which absorbs more heat and in turn speeds up the melting process. This is why the arctic ice is melting more rapidly than scientists thought possible. There has been a 40% loss in 40 years and the rate of loss is increasing. Polar bears are swimming up to 60 miles in desperate attempts to find ice. When they can't find any ice, the polar bears drown. Polar bears are canaries of global warming. As the polar ice melts, the sea levels will rise up to 20 feet. We are already losing Smith Island in Maryland.

Speaker 4 - South And don't forget about the penguins. Penguins are another canary of global warming. The warm temperatures are affecting the population and behaviors of Emperor penguins. The Antarctic ice shelf lost a whole sheet of ice the size of Rhode Island. If Penguins have less space to live, what does that mean for us? As more of the Antarctic ice melts, sea levels will rise up to another 20 feet. Can you imagine hurricane floodwalls around Annapolis?

Speaker 5 – The Industrialized World

With warmer water, there will be even more devastating hurricanes like Katrina. There will be more unhealthy air and heat waves that kill people, like those in Europe. There are 30 new infectious diseases, such as West Nile fever, that are linked to global warming. The American farm belt is facing prospects of more droughts. Does it make sense that more people are moving to the Southwestern desert when there will be less rain and less water,

and no rivers from the glaciers in the Rockies. Because of rising temperatures, the Baltimore Orioles (the real birds) are leaving Maryland and moving north.

Speaker 6 – The East (China, India, Indonesia) - People in India and China want what we have: cars, big homes, and computers. More cars and more coal-fired energy plants in the Far East will produce even more carbon dioxide at a faster rate. Glacier ice on the Himalayas is disappearing rapidly. As this ice disappears entirely, the rivers will dry up and 40 percent of human population will not have a reliable drinking supply. As the sea levels rise, Indonesia will lose about 2,000 islands out of its 18,000 islands. So tell me, why did the US refuse to sign the Kyoto Accords of 1997 to cut carbon dioxide? We need the equivalent of 20 Kyoto Accords to stop Global Warming.

Speaker 7 - The North/Northwest (Alaska) Some people insist that Americans should develop oil reserves in Alaska. Why? The service trucks must drive across the frozen tundra. In past, there were 225 days when the tundra was frozen enough to drive on. Due to global warming, truck drivers now only have 75 days of frozen tundra for driving. As the permafrost melts, there are major cracks in the Alaska pipeline. The pipeline will need more maintenance with less and less time available to repair it. In Alaska, the forests are filled with drunken trees. As the permafrost melts, the trees are falling every which way and the permafrost is releasing frozen carbon dioxide. The drunken trees are falling when we need to double the number of trees in the whole world to absorb carbon dioxide.

ALL: Now is the time to act to stop Global Warming. Now is the time for people of faith to speak out.

Speak –Out to the Skeptics *by Kelson Shilling-Scrivo*

We know that there are skeptics. Worse, some people intentionally misrepresent the facts to create doubt and controversy. Other people present false choices about what we should do. This is about our future and we will have our voice. We ask you to listen to the facts with an open mind.

Skeptics Question #1- There are all the movies and scientist agreeing about global warming, but aren't they are all just cooking their data to try and prove a point?

Response #1 – People are exaggerating on both sides of the argument, global warming isn't going to be the end of human life of on the planet but it is happening. What is agreed on by scientists is that humans are the cause of global warming. All the data shows how temperature is rising with level of carbon dioxide, and that carbon dioxide levels are at unprecedented levels and are increasing even faster.

Skeptic's Question #2: Well, before 650,000,000 years ago CO₂ Levels were at 1,000 parts per million and life on the planet did not end. So what's the big deal about 500 parts per million?

Response #2: The problem isn't how much Co₂ there is it's how it's fast. All that Co₂ was put in over thousands of years and everything on the planet had time to adapt to the new climates. Now Co₂ is being put in so fast that species won't be able to adapt quickly enough and will die out

Skeptic's Question #3 – What can we do about it? China and India are industrializing and, oh, by the way, China alone will triple its carbon emissions within 25 years.

Response #3 – We have to worry about our own pollution before we can expect changes from China. The USA contributes about 1/4 of all carbon dioxide emissions on the planet. The average American home produces around 50 tons of carbon dioxide a year.

Skeptic's Question #4 –Coal and oil are the main fuel sources for not only our homes, but also our economy. Switching will only cause a loss of jobs at coal plants and an economic recession.

Response #4 – If the oceans rise 40 feet, the USA is going to lose huge parts of the coast – 25% of Florida is gone and Manhattan Island and Ocean City are underwater. To save them it would cost hundreds of billions of dollars to build floodwalls for our entire seacoast. That could seriously hurt our pocketbooks. The change to renewable energy is gradual and is not going to increase unemployment. In fact, there will be more jobs in renewable energy that could stimulate our economy.

Ask your skeptic:

- What's going to happen to all the fish and corals now that the water temperature is rising destroying the marine ecosystem?
- What's going to happen to the (cute fuzzy) polar bears and animals that lived on the arctic ice now that is all melting, and they are quickly becoming an endangered species? Do you want that to happen?
- Do you care that the hotter temperature means more mosquitoes complete with all the diseases they carry?

What would UU's Do? What our UU principles say about our duty to act

As a teen group, we have discussed "What would UU's do?" We have applied our UU principles to Global Warming. We ask you to join us in this responsive reading. Please read the bold text.

Teens: We respect our earth, all people, and all life on our earth.

Congregation: All life is at risk from Global Warming.

Teens: We are all related in one global village.

Congregation: We should care about everybody else, and not just ourselves. We all share the same world.

Teens: We believe in free search for truth about Global Warming and what we can do to halt abrupt climatic change.

Congregation: We believe that seeking knowledge builds civilization, where denial and superstition lead to its demise.

Teens: We use the democratic process of free speech and free assembly to tell other people about our views.

Congregation: We seek to learn the facts. We use reason and discussion to separate the facts from confusion. We use the facts to dispel attempts at creating controversy where there is none.

Teens: We are responsible for releasing tons of greenhouse gases every year. Unlike any time in past 300 million years, one species is responsible for changing the world climate.

Congregation: We will do our best to help fix the problem. We will change our behaviors that contribute to global warming.

Teens: We are justice-seeking people. We want justice for our lives and our future.

Congregation: Carbon dioxide emissions are altering the climate and killing plants, animals, and people. We need to fix it now as it affects us now.

Teens: We have the right of conscience and we have to make a choice.

Congregation: The choices are clear. We reject attempts to raise false choices that dissuade action. We need to adopt renewable energy and other energy saving measures to reduce carbons dioxide emissions immediately.

Teens: We want to help others gain awareness of their contributions to global warming. We want to encourage others to take action and be "green".

Congregation: We will encourage our friends and neighbors to use renewable energy and to save energy. We will write letters to our legislators to encourage them to support "green" laws.

Teens: We live in one global village, on one world. Justice for one is justice for all.

Congregation: We can make a difference if we work together in faith. Let our actions be our prayer. Let our actions give hope to the future.

10 THINGS You Can Do.

As a teen group, we discussed and devised 10 things that you can do NOW to save energy and cut down carbon dioxide. You have to start somewhere. So, here are 10 easy and effective ways to get started.

1. Use non-phosphorus automatic dish detergent
2. Take shorter showers
3. Unplug things when not in use
4. Plant gardens and trees
5. Conserve electricity
6. Carpool/bike
7. Reuse and fix things
8. Recycle all recyclables- if your work or school does not recycle, help set up a program
9. Reduce your consumption- choose reusable items like cloth grocery bags...
10. Change a bulb

Congregation Sharing

We now ask the congregation to share their views about Global Warming.

Extinguishing the Chalice and Closing Words:

Changing a light bulb is important. Changing from incandescent to compact florescent bulbs will save 75 percent of light bulb energy. It is an easy way to start making a difference. As you start changing light bulbs, may you change other behaviors as well.

Benediction

RESPONSIVE CLOSING

Editors Note: The teens learned this song at a Winter Con from an environmental group, Chesapeake Climate Action Network. It is best to teach the lines and the actions and then sing or say it.

Whew, It's Hot in Here (WIPE forehead with the *WHEW*); PULL on shirt collar with *HOT IN HERE*)

There's Too Much Carbon in the Atmosphere (POINT above your head)
(REPEAT BOTH LINES)

Take action, Take Action (POINT at other congregants; POINT at other congregants)
Get...some satisfaction. (Do the TWIST)
(REPEAT BOTH LINES)

“Global Warming: a collage of words and music on the problem, the spiritual awakening, and the challenge”

UU Church of Eugene, OR

October 15, 2006

For this service three readers were positioned among the congregation-in-the-round, each with microphone for volume and clarity. A small chamber choir, piano, recorder, and guitar (no mikes) provided background music throughout, much of it from Paul Winter's and UU Jim Scott's "Missa Gaia." Readings were drawn from a number of authors and arranged in oral collages on these themes:

- *the seriousness of the problems of global warming,*
- *spiritual awakening to the problem,*
- *the solutions already in place awaiting leadership,*
- *and finally a call to action - what individuals and groups can do and to seek opportunity and adventure rather than defeat and despair.*

Member, Eldon Haines described the service this way, “Most of the music was played sotto voce under the ongoing readings. The congregation was spellbound, and we got positive, sometimes enthusiastic, praise. We think the music keeps hearts open while the words pour in, words which would otherwise soon become a drone.”

Chalice lighting

"Do not be daunted by the enormity of the world's grief.

Do justly, now. Love mercy, now. Walk humbly, now.

You are not obligated to complete the work,

but neither are you free to abandon it."

- Rabbi Tarfon, The Talmud

Reading

A portion of the poem “To Be of Use” by Marge Piercy

Chamber Singers “This we know.”

THE PROBLEM

Chamber Singers “Open Chant”

Speaker: We know that certain gases, especially carbon dioxide, reduce the rate that heat escapes the Earth. These gases, acting like the glass in a greenhouse, let the sun's light in, but prevent the sun's heat from escaping: the well-known greenhouse effect. This we know.

Speaker: Analysis of the 740,000 year Antarctic ice core shows that the atmospheric levels of CO₂ were lower during ice ages and higher during the warm interglacial periods, but never exceeded about 280 ppm. During the past 200 years CO₂ levels have risen, slowly at first but ever more rapidly during the 20th Century, and turning up sharply upward around 1960. The CO₂ level measured just this past July on Mauna Loa, was 385 ppm, 43% higher than any level in the last 740,000 years. This we know.

Speaker: Global temperatures began to rise around 1970. The 22 warmest years on record have come since 1980. And the six warmest years since record keeping began in 1880 have come in the last eight years. And last year, 2005, topped all previous annual records. This we know.

Speaker: The rises in carbon dioxide levels and global temperature coincide with increased burning of coal and petroleum for industry and transportation and for heating and cooling our homes. Climatologists agree that humans are responsible for the abrupt rise in carbon dioxide and the resulting high world temperature.

Speaker: Record heat in 2003 claimed 49,000 lives in eight European countries, fifteen times more than died in the 9/11 terrorist attacks. In that year alone world grain harvest fell by 90 million tons, 5% below consumption. In the record heat of 2005 the US corn crop suffered a 34 million ton shortfall. This we know.

Speaker: While the US and other industrialized countries produce most of the greenhouse gasses, the effects of global warming are felt worldwide, more dramatically among the cultures and species of the world whose homelands are degraded or destroyed. This we know.

Speaker: Increased downpours and storms in some areas, droughts in others, will drive people already excluded by industrial culture out of impoverished environments. Immigration into industrial nations, already considered a burden, will grow and cannot be stopped except by the harshest means. Species unable to migrate through fields, highways, clear cuts, and cities will perish as their accustomed climate is disrupted.

Speaker: Climate disruption means more violent weather. Hurricanes become more severe. Cold fronts bring arctic air to lower latitudes, disrupting ecosystems and agriculture. Warm water and warm air moving to higher latitudes disrupt ocean environments and bring tropical diseases to temperate regions.

Speaker: Temperatures have risen twice as fast in polar zones than in temperate regions. The Arctic Ocean's ice pack has shrunk by 40% leaving huge areas of open water in the summer. Glaciers are disappearing. Melt flowing from the Greenland ice sheet equals the flow of the Nile River. In just-published measurements, the flow of Greenland's Jakobshavn Glacier has doubled since 2003. Ice shelves of the West Antarctica Ice Sheet are calving at record rates; one such iceberg was the size of Rhode Island. The Antarctic glaciers, once held back by the ice shelves, now flow 30% faster. This we know.

Speaker: The huge mass of the sea heats slowly, but as sea temperatures rise, the water expands and sea level rises. In the past 100 years sea level has risen between 3 and 10 inches, depending on where it was measured. Sea level is expected to rise another 20 inches by 2100 due to ocean warming, even if the Greenland and Antarctic ice packs don't melt. This rise would flood about half of North America's coastal wetlands and vastly increase the 100-year floodplain. Coral atolls in the Pacific and Indian Oceans are eroding faster. Another 20 inches of sea-level rise by 2100 will make those atolls uninhabitable. Bangladesh will lose more than half its rice-growing lands.

Speaker: However, if the grounded ice sheets of Greenland and Antarctica move into the sea, sea level will raise more than 40 feet. The world's coastal cities and farms will be inundated. Such sea levels would trigger migrations of unimaginable proportions. It also raises questions about responsibility to future generations that humanity has never faced before.

Speaker: Melting ice in Greenland and the Arctic Ocean, according to oceanographers, may stop the northward flow of the Gulf Stream, which keeps Europe temperate. If that happens, Europe will become Siberian in a decade, and the rest of the Earth's climate may shift to a new pattern, perhaps a new ice age.

Speaker: Here at home, Oregon is expecting milder winters, more rainfall and less snowfall, with hotter, dryer summers. Low snow pack damages irrigated agriculture and river ecosystems. Hot, dry summers promote forest burning and subsequent replacement by oak savanna.

Speaker: With about one twenty-fifth of the world's population, we in the US use about a quarter of the world's energy. Each US inhabitant uses twice the energy of a Western European, 12 times that of a Chinese, 33 times more than a citizen of India, 147 times that of a Bangladeshi. Many nations, China included, signed the Marrakesh Accord in 2003, pledging to reduce their greenhouse gas emissions below 1990 levels by the year 2012. The United States did not participate in the Marrakesh Accord.

Speaker: So, how is it that you – and I – produce such a prodigious amount of carbon dioxide? If you use over 800 kilowatt- hours of coal-fired electricity in your home in a month, you personally release over 2,800 pounds of carbon dioxide. Gasoline burned in your car releases about 18 pounds of carbon dioxide for each gallon consumed. If you drive a standard car eight to ten thousand miles in a year, your CO₂ emission will weigh twice as much as your car.

Speaker: Whether you cross the country in a car or in an airplane, the Union of Concerned Scientists estimates that you will personally add over 1,700 pounds of carbon dioxide each way to the atmospheric burden.

Speaker: By 2040 world oil production will fall to about 1/3 of its 2010 peak. If efficiency and renewable resources do not replace oil, prices will rise until only the richest can afford it. If we use grains to produce our biofuels, our driving privilege will compete directly with the world's poorest for the grain they need to eat.

Speaker: We in the West are addicted to the narcotic of consumption. We have based our comfortable lives and promise of our comfortable retirements upon our consumption. We ask our corporations to supply us with goods and services we use. We also ask them to support our plans of the future, as we buy from them, invest in them, work for them.

Speaker: Corporations are not to blame. They simply do what we ask of them: they supply us with stuff we ask for, and with profits to buoy up our retirement plans. But we unwittingly turn our power over to them. We let them set our standards, define our desires, and even limit our liberties. We fight wars to protect oil supplies, and forget the human beings behind the drilling and the guns. Corporations assure us that all our consumption is desirable. As news stories about the warming of the planet appear, efforts are made to dismiss them as unfounded. We

listen for a response from the people, but hear only eerie silence. Global warming is a story that people simply do not want to hear.

Speaker: But the message is clear, and Lester Brown says it best:

“The days of the fossil-fuel-based, automobile-centered, throwaway economy are numbered.”

Offertory: piano version “For the Beauty of the Earth”

Chamber singers “For the Beauty of the Earth” hummed and sung

SPIRITUAL AWAKENING

Speaker: Increasingly, people of faith across the religious spectrum have begun to respond to the urgency of climate change. Christian, Jews, Muslims, and UU's are among many uniting in the global cause.

Speaker: Church environmentalists include zoologist and Christian Calvin DeWitt, organizing field courses and conferences to teach about ecology from a Christian notion of stewardship. He sees the Biblical need "to dress and keep the fertile earth" and to bring together all disciplines - chemistry to economics, marine biology to theology - "that we need to be good stewards of God's household."

Speaker: Islamic leaders concerned over global warming include Dr. Imad Damaj who sees personal responsibility for the earth in the teachings of the Koran. He calls upon Muslims to act on their conviction that global warming is a threat to God's creation. Damaj works with the California interfaith community in support of the Safe Climate Act, sponsored by Rep. Waxman of California. The bill encourages clean energy and acts to cut U.S. greenhouse gas pollution 15 percent by 2020 and 80 percent by 2050.

SINGING WAS INTERSPERSED THROUGH THESE STATEMENTS

Speaker: UU leaders include our President Sinkford, supporting the national cyber march held last year to build support for the issue of global warming. He writes: "As people of faith, we are called to speak out for the many species that are suffering and becoming extinct. We are called to speak out for Arctic Circle villagers, where thousands of years of subsistence living is sinking with the ice which can no longer hold seals or hunters. We are called to speak for our children and grandchildren, whose very survival on this planet will be thrown into question in ways we cannot yet imagine."

Speaker: Paul Gorman, co-founder of the National Religious Partnership for the Environment, is building environmental support among American Jews, Catholics, Protestants, Methodists, Lutherans and evangelical Christians. He writes, "We need to see the inescapable religious dimension of this challenge." After a thousand Sunday school curricula, special liturgies and summer camps, Gorman has seen America's Catholic bishops issue a pastoral statement on the environment, raising it to the level of urgency of hunger and poverty that the Church has addressed for centuries around the world.

Speaker: Christian activists include Bill McKibben, author of “Will Evangelicals Help Save the

Earth?" While on a fellowship at Harvard Divinity School, he joined a demonstration outside an SUV dealership in Boston. His sign "WWJD - What Would Jesus Drive?" made clear his concern for the responsibilities shared by all Christians.

Speaker: Efforts of the Jewish community include The Coalition on the Environment and Jewish Life and its mission for "Protecting creation, from generation to generation" as set forth in its 2006 Climate Change Campaign. The Green Synagogue promotes discussion of issues of climate change from the Jewish obligation "to till and to tend". The Climate Challenge program is a worldwide initiative for Jewish youth groups to become "carbon neutral", adapted for Hebrew schools, congregations, summer camps and Jewish communal institutions. The compact fluorescent light program is reaching out to synagogues and Jewish institutions nationwide. The "Take Your Senator to Synagogue" program invites elected officials to installation ceremonies of the compact fluorescent bulbs with the message: "Here's what the Jewish community is doing to help stop global warming. How will you address this critical problem?"

Speaker: Some religious voices are beginning to challenge consumerism and the pursuit of wealth at the root of environmental problems. Mathew Sleeth, author of *Serve God, Save the Planet*, preaches the Green Gospel. "God asks us all the surrender some of our earth-wrecking wealth," he writes. "Bible-believing Christians have confused the kingdom of heaven with capitalism and consumerism." Sleeth has downsized, bought a Prius and put up a clothesline. He sees the ecological battles before us, comparing them to the greatest challenges in American history. "There's a longing for a spiritual life in this country. a great hunger for something more than capitalism."

Speaker: As green building expands across the country and into the Northwest, congregations of churches and temples are seeing that green building makes sense. Environmentally friendly, energy-efficient structures certainly fit well into the concept of stewardship. Oregon Interfaith Power and Light's mission is to conserve nonrenewable energy sources and reduce greenhouse gas. The recent screening here in this church of "An Inconvenient Truth" was one of over 4000 shown nationwide this month in a program coordinated by the Interfaith Power & Light, committed to deepening the connection between ecology and faith and the morality of facing our role in climate change.

Speaker: These are glimpses of people of faith now sharing fundamental concerns over climate change. Much in the religious communities has begun. Bill McKibben calls this an emerging sense among people of faith that we are indeed here to preserve the earth. Debates over issues like creation versus evolution (or the war on terrorism) simply seem to him "a little less crucial in an era when DE-creation has become the real challenge".

Chamber Singers: "Canticle of Brother Sun"

THE CHALLENGE

Quiet piano version of "Blue-Green Hills..."

Chamber Singers: "Blue-Green Hills..." hummed, then sung

Speaker: And so we are presented with a challenge: how to significantly reduce the damage we've done to the atmosphere and the compounding dangers for all of life on earth.

Speaker: “Curbing global warming may be an order of magnitude harder than, say eradicating smallpox or putting a man on the moon. But is it moral not to try?”

Speaker: There are hopeful signs on many levels that could tip the balance. Internationally, many nations are working to reduce global warming.

Speaker: The Kyoto Protocol was ratified by 140 nations and requires the 35 industrialized countries that accepted the pact to reduce their greenhouse gas emissions by an average of 5 percent below 1990 levels by 2012.

Speaker: Sweden’s leaders have passed laws that would be unthinkable for a U.S. politician – taxes on fuel and CO2 emissions to induce car owners to trade in their gas guzzlers for hybrids, and tax exemptions for home owners who switch from oil heating to renewable energy.

Speaker: In Helsingborg, Sweden, 23% of the municipal vehicles run on renewable fuel, and their goal is 50% by 2010.

Speaker: On the corporate level, many companies are taking action: Walmart has begun installing wind turbines on its stores to generate electricity and is talking about putting solar collectors over its parking lots. They have promised to cut greenhouse-gas emissions at existing stores 20% over the next few years and pledged to construct new stores that are 25% - 30% more efficient. Wal-Mart aims for its 7,000 trucks to get twice as many miles per gallon by 2015. They say they’ll reward manufacturers to trim their packaging. Of course these moves - called “greenwashing” by some - are intended to save Walmart money. But environmentalist Amory Lovins supports such moves. He says if the end result decreases global warming while it increases their net worth, so be it.

Speaker: The world’s second largest bank has pledged to neutralize its carbon output by investing in wind farms and other green projects.

Speaker: Increasingly, state and local governments are filling the void. Mayors of more than 200 cities have signed the U.S. Mayors Climate Protection Agreement, pledging, among other things, that they will meet the Kyoto goal of reducing greenhouse-gas emissions in their cities to 1990 levels by 2012.

Speaker: Nine eastern states have established the Regional Greenhouse Gas Initiative for the purpose of developing a cap-and-trade program that would set ceilings on industrial emissions and allow companies that over-perform to sell pollution credits to those that under-perform, the same smart, incentive-based strategy that got sulfur dioxide under control and reduced acid rain.

Speaker: The U.S. Mayors’ Climate Protection Agreement: so far, 218 mayors in 39 states, representing nearly 44 million Americans, have signed on to its 12 step program for their own cities to meet or beat Kyoto’s original target.

Speaker: Salt Lake City has converted 1,630 traffic stops to energy-efficient light-emitting diode signals – which alone will save more than 500 tons of CO2 pollution each year. The idea

is to solve global warming one city at a time. If it's not going to happen from the top down, let's make it happen from the bottom up!

Speaker: California passed the nation's toughest automobile-emissions law last summer.

Speaker: Portland, Oregon, has trimmed carbon dioxide to a 15-year low, the first time a major U.S. urban area has shown such a decrease. Portland zeroed in on global warming beginning in 1993, and has already slashed emissions by 13% per capita, partly by building light rail and 730 miles of regional bikeways. Portland has had a 75% growth in public transit since 1990, and purchases renewable energy for 10 percent of its electricity. They've planted more than 750,000 carbon dioxide absorbing trees and shrubs since 1996 and weatherized more than 10,000 multifamily units and 800 homes in two years.

Speaker: Jane Lubchenco, an Oregon State University environmental scientist, calls Portland's progress "absolutely astounding." She says, "I know of no other city in the world that has lowered greenhouse gas emissions at this level."

Speaker: Locally, many companies support sustainability. Market of Choice, for example, sold its discarded cardboard to Weyerhaeuser in 2005 for \$126,000. That diverted about 2,000 tons of waste from the landfill and prevented approximately 6,000 tons of carbon dioxide emissions.

Speaker: The local Eugene REI store is purchasing 100% of its energy from wind power and is also buying wind, landfill gas and solar-generated electricity for 80 of its other stores.

Speaker: This year, The Green Guide named Eugene as the top green city in America. Eugene beat 251 other cities in 12 areas including environmental policy, air and water quality and transportation. Far more than most cities, Eugene's government is green; using 100 percent recycled double-sided paper, many hybrid and biodiesel vehicles, green building techniques, energy efficient heating and lighting systems, and solar water heating at Sheldon and Amazon swimming pools and two new fire stations.

Speaker: In Eugene, most of us take for granted that we can have our recycling and compost picked up at our curb. In many places still, people have to pay extra for recycling pickup, or haul their own recycling or there is no recycling available. The city estimates that 90 percent of Eugene households recycle.

Speaker: Recently, due to concerns about global warming, the Eugene mayor launched the Sustainable Business Initiative. Among the recommendations are for city government to stop sending waste to landfills by 2020 and to reduce carbon dioxide emissions so that city operations become "carbon neutral" by then. Another recommendation is that the city only buys products and services from firms that follow "sustainable practices." The city buys millions of dollars in goods and services every year and has the potential to positively influence the marketplace.

Speaker: In our own church community, a group of hard working members have formed the Green Sanctuary Committee in an effort to improve church energy efficiency, encourage alternatives to driving to church, consider green building practices for any needed construction, and generally encourage and educate the congregation regarding environmental issues.

Speaker: What can we, as individuals, do to help?

Speaker: Is it better to buy a new hybrid car or a high-efficiency house? Plant trees or recycle? Fly or drive? Based on the evolving and complicated science of carbon accounting and local statistics, here's a stab at some answers.

Speaker: Nationally, about 90 percent of electricity is generated using fossil fuels, but in Eugene only about 8 percent comes from that source. Most of the rest is from wind power and hydroelectric power, which is brutal on salmon but makes a much lighter impact on global warming.

Speaker: Our renewable energy sources make it easier to reduce global warming locally by using less gas for transportation than by increasing our home efficiency. The average local person generates almost 10 times more carbon dioxide per day by driving alone than by using energy in their home. So, it seems that for us Eugeneans, the car we drive is our most important personal climate decision.

Speaker: If you're not able to buy a new hybrid, staying with an older car but driving it less might be a cheaper and easier on global warming. Carpooling can effectively double or triple gas mileage depending on the number of passengers. The bus is the best carpool. Walking and biking use no oil and burn only cholesterol. Lester Brown says his bicycle gets five miles per potato.

Speaker: The savings from such efforts can be huge, even if only done once a week. If an average local person skips driving for a day in Eugene, they'll save the carbon dioxide equivalent of turning all the lights out in their house for two months. Two days of not driving alone can be worth an average month of home water heating.

Speaker: Some other important gas saving tips include keeping vehicles in excellent condition by regularly replacing air filters, getting tune ups, and checking tire pressure.

Speaker: As far as home energy efficiency is concerned, when you have to replace appliances, look for the Energy Star label. The initial cost is a bit higher, but the energy savings will pay back the extra cost within a couple of years. Get home energy audit. Some basic, simple measures (like a programmable thermostat or insulating heat ducts) can help. Buy green power from wind energy, at either a small additional cost or even a monthly savings, depending on how many kWh you use per month.

Speaker: Replace all incandescent bulbs with compact fluorescent bulbs. If every household in the U.S replaced its next burned-out light bulb with a compact fluorescent, it would save the equivalent of taking 1.2 million cars off the road for a year!

Speaker: We all struggle with our good intentions, but sometimes with limited follow through.

Speaker: My personal challenge: When I buy groceries, I always bring reusable bags in the car, but half the time I forget to bring them with me into the store. I need to walk back to the car if I forget them; that would probably re-train me!

Speaker: When our family goes out for Chinese food, there are always leftovers to take home. I work to remember to keep some plastic-ware in our car so that we can stop taking home non-recyclable styrofoam take-out containers!

Speaker: I try to drive less, and more slowly when I do.

Speaker: Our home and auto transport have small carbon footprints. But I fly a third of the way around the world and back every year – on the pretext of “doing good.”

Speaker: Your *Carbon Footprint* is a representation of the effect you have on the climate in terms of the amount of greenhouse gases you produce – measured in units of carbon dioxide (CO₂).

Speaker: The average US family of four has a *Carbon Footprint* of 6,080 pounds of CO₂ each month for home and transportation. That is, 36-1/2 tons of CO₂ each year. Actually, when you include the energy embodied in producing and transporting our houses, cars, food, and junk, it's 2-1/2 times larger than that.

Speaker: Would you like to know your *Carbon Footprint* for your transport and house? If so, then after the service fill out the boxes in the *Carbon Footprint* form in your order of service and place it in the box labeled *Carbon Footprint* on the table near the front door – or hand it to any of this morning's presenters. Or bring it next week. Or mail it to the address on the form. Or use your computer and do the calculation yourself, and send us your family and individual results if you are willing. We'd like to use your results to calculate the whole congregational footprint, so please email them to us.

Speaker: And, last but perhaps most powerful, consider using your hard-earned money as a vote for what matters to you. When you buy from locally owned and sustainable and socially conscious businesses, you “vote” to decrease the overall contribution to global warming.

Speaker: As Garrison Keilor reminds us:
*“Some luck lies in not getting what you thought you wanted
but getting what you have, which once you have got it
you may be smart enough to see is what you
would have wanted had you known.”*

Closing Words

Reprise - Chamber Singers: Last verse of “Blue-Green Hills...”

Earth to Humans: "Love me or leave me"

Jack Harper, PhD, UUMFE Regional Representative, Joseph Priestly District Sermon at
Tennessee Valley UU Church on Earth Day, 22 April 2007

I'm in love. Hopelessly. She stole my heart. I'm hers. She spawned and molded me and nurtured and caressed me. As I was being carried down an Amazon river floating on my back listening to birds in the overhanging trees, Mother Earth delighted me with her creations. I have heard the hoofbeats of the great Serengeti migration of wildebeests and zebras in the East African grasslands. And I have swum with sharks on the Belizean coral reef to be enchanted by a kaleidoscope of color.

After half a century of traveling, I no longer just take in the beauty and wonder of a place but question its sustainability. How long will it last? The Amazon rainforest having suffered an unusual drought aided by deforestation and climate change is in danger of drying and burning, threatening a third of all plant and animal species on Earth. Global warming and the emptying of forests and savannas of wildlife for bushmeat, ivory, trophies, timber, and agriculture may soon snuff out many species such as gorillas and chimpanzees in the wild. Warming oceans, acidification, and pollution may destroy most of the tropical coral reefs and their sea life by mid-century. Ocean fisheries are headed toward collapse in 40 years due to overfishing and habitat destruction. Climatologists estimate that almost a third of the land will be in extreme drought by the end of the century. Water crises loom around the world as glaciers in the Himalayas, Rockies, and Andes melt. I am stunned by the rapidity of the deterioration of Earth's ecosystems and the threats of irreversible collapse.

Ever notice the little plate in elevators stating their carrying capacities, the number of people they can safely carry? Our small blue planet is over its carrying capacity by one to four billion people according to ecologists. The result is continued deterioration and collapse of vital ecosystems. More than half of Earth's species are expected to become extinct this century if we take no action. Habitat destruction, pollution, over hunting and fishing, invasive species, as well as global warming are causing the extinctions. Extinction is forever!

We have at most 10 years to launch a substantial effort to curb global warming before it gets out of control according to NASA's top climate scientist Dr. James Hansen. The tipping point is approaching sooner than expected based on the severity of effects seen from the poles to the tropics. The oceans rose 80 feet in a warming episode 3 million years ago with a temperature increase of 5° F. above today's level and within the range forecast for the end of the century. Flooding would eventually cover major coastal cities such as Shanghai, Tokyo, and London. If we have not already reached the point of no return, we surely will in a few years if we do not take massive action immediately.

"Don't worry", said my neighbor, an Exxon executive. "The market will take care of it."
"Don't worry", said my former dentist Ralph when I told him of the severe problems facing the planet. "God wouldn't let it happen." "Don't worry", said the two girls from a pre-Darwinian sect who came down the driveway. "If we destroy the Earth, God will restore it as it was."
Now I'm really worried. Not only is the planet in serious trouble, but lots of people out there are in desperate need of Biology 101.

Is it hopeless? Not if we get to work. National spirit and sacrifice as in the Second World War are needed to save the planet and civilization. It can be done. As a boy I saw everyone in the community participate in winning the war. Men went off to fight. Women worked at the air bases and shipyards. Children salvaged metal and paper. And the war was won in less time than the ongoing Iraq war.

Global warming is now in the mainstream thanks largely to Al Gore's Oscar winning documentary, "An Inconvenient Truth". There is no more debate on the basic science, as skeptics fade away. I am so proud that Unitarian Universalists voted overwhelmingly for a strong Statement of Conscience on Global Warming at the General Assembly in St. Louis last year. Catholics, Jews, Protestants, and many Evangelicals have rallied to the cause of saving Creation and averting catastrophe. Many states and cities have pledged to lower carbon emissions. School children and retired generals are demanding that action be taken. Over 1300 Step-it-Up demonstrations and rallies were held on April 14th. Our Supreme Court has ruled that EPA has the authority to limit carbon dioxide emissions from cars. The European Union will reduce greenhouse gases 20% by 2020 and would raise this to 30% if the United States would cooperate.

Our country that has produced three times as much greenhouse gases as any other country is most responsible for climate change, ecosystem destruction, and eco-refugees predicted to be in the hundreds of millions. Isn't it ironic that Africans who have emitted only 3% of greenhouse gases may suffer its most serious consequences? I am outraged that we have done almost nothing to reduce the greenhouse emissions that are the principal cause of global warming. In fact, our government has systematically muzzled scientists and rewritten science reports to downplay global warming and its urgency. They have discouraged international efforts. They have not alerted the public to the catastrophic consequences of global warming and peak world oil production nor provided realistic plans of action or asked for sacrifices. We need real leadership at all levels and we need it now.

Our nation that uses a quarter of world resources should not conduct resource wars, destroying life and wealth and respect. As a world leader the United States should set a good example by lowering carbon emissions to protect the planet and should help developing countries combat global warming, hunger, and disease. We can no longer stall, blaming others for inaction. Sir David King, British science advisor, was right when he said that global warming is a bigger threat to humanity than terrorism.

What can you and I do? Most important is to get political, as World Watch founder Lester Brown says. Call and write your elected government officials at all levels - federal, state, and local. Tell them that you are serious about global warming and that you want strong action taken now. Governments and corporations will not move unless we push them. Support bills such as the Safe Climate Act introduced by Congressman Waxman to reduce greenhouse gases by 80 percent below 1990 levels by 2050. A similar bill was introduced by Senators Boxer and Sanders in the Senate. Campaign and vote for those who will work hard to control global warming. Stay informed. Organize and participate.

Necessary, but not sufficient in themselves, are actions we can take in our own lives. We can drive fuel efficient cars: hybrids are good, plug-in hybrids better. Imagine plugging in your car when you get home to be refueled by wind-generated electricity. Take buses and commuter trains. Carpool and telecommute. Reduce fossil fuel use in heating your home. Insulate. Use efficient wood stoves, geothermal, or solar heat. Eat more locally grown food. Reduce meat consumption since nearly one-fifth of carbon emissions come from the meat industry. Choose Energy Star appliances and compact florescent bulbs. Support family planning around the world.

Don't be misled by the propaganda by some in the oil and coal industries, skeptics groups they fund, or their allies in government. They are trying to confuse you into believing that global warming requires more research before action can be taken. And beware of greenwashing by pretenders who make a big splash in the media but deliver very little.

Well-healed lobbyists are busy urging politicians to spend your tax dollars on their global warming panaceas, many of them just bad ideas.

Ethanol from corn? Bad idea. Corn has doubled in price, now going to the highest bidder for food or fuel. We 800 million car owners around the world are competing with 2 billion of the poorest people on the planet for corn. This will result in inadequate diets for many who will be pushed over the edge. Eighteen thousand children die each day of hunger and malnutrition.

Biodiesel fuel from oil palm? Bad idea. Tropical rainforests are rapidly being cut in Indonesia and Malaysia for timber and to plant oil palm plantations to supply the European market, wiping out the habitat of man's close relative the Orangutan that is not expected to survive in the wild more than 5 years. The release of carbon from this destruction and burning is enormous. The loss of tropical plant and animal species is incalculable.

Liquid coal? Bad idea. The conversion of coal to liquid fuel would release massive amounts of carbon dioxide making a dirty fuel even dirtier.

It is unconscionable that many corporations and governments put short-term profits before the long-term survival of life on this planet. Knowledge of the degree of severity and speed of global warming has been withheld from the public in the latest United Nations report by some oil and coal producing countries. Focused on growth, the world economic system is unsustainable on our finite planet. We do not pay the real costs of goods. If gasoline were to include the environmental and social costs, we would pay \$11 a gallon at the pump. Carbon emissions can be greatly reduced by imposing carbon taxes and higher auto fuel economy standards.

If we humans are to survive on Earth, we must ultimately live in ecologically sustainable communities that function without causing environmental damage. Energy must originate from sources that are renewable, safe, clean, and non-polluting such as solar, wind, and geothermal. Solar cell production is doubling every two years and nanotechnology promises to make solar energy competitive. Wind power, now competitive with grid power, is doubling in new capacity every three years. Geothermal and oceanic power potentially offer immense energy

sources.

Ecologically sustainable communities can still be found in the Amazonian rainforests. The communities of Kichwa, Achuar, and Secoya Indians that we visited in 2005 are surrounded by lush forests that supply them with food, drugs, building materials, and spirituality. You and I live far from sustainability. Five planets would be required to support the people on Earth if everyone lived as we do in the United States.

The world's largest environmentally sustainable community is being planned in southern Portugal at a cost of more than a billion dollars. The development, Mata de Sesimbra, will house 30,000 people in 8,000 solar powered units built of sustainable materials. Only renewable energy will be used. Half of the food will come from local sources. A sustainable transportation network will eliminate the need for private autos. Rainwater collection and water recycling systems will reduce water consumption. An 18 square mile native pine and oak forest will be restored to protect wildlife habitat.

We have an exciting opportunity to halt further damage and restructure our lives to be in harmony with nature. We can take the first steps now, retrofitting our homes. We can introduce our children at an early age to the out-of-doors and show them the wonders and beauties of nature. Towns and cities can be redesigned to adapt to global warming and peak oil. We can restore ecosystems to their fullness to protect wildlife and ecosystem services.

We are in a long-term struggle to survive on a changing planet that we do not fully understand. This will alter the way we think about the Earth, about life, and about religion. Our children and grandchildren and their descendants will be living on a diminished planet working toward sustainability. Survival will demand a new paradigm, an operating principle, that will infuse our lives, our institutions, our businesses and governments such that we value life, all life, and work together to achieve social, economic, and environmental justice for all.

We are in the fight of our lives to save 4 billion years of evolution and civilization. There will be setbacks, disappointments, and tragedy. We cannot sink into despair. Remember Wangari Maathai, the Nobel Peace Prize winner, who was beaten in the streets for trying to save a forest. She went on to organize the planting of over 30 million trees, restoring ecosystems and communities in East Africa.

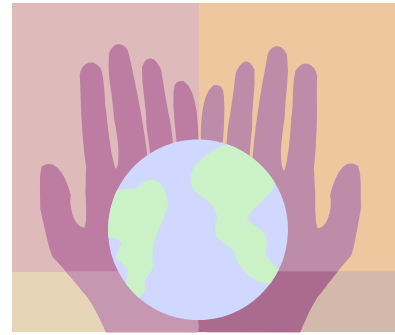
We have to get beyond denial, greed, and fear. We have to come to the realization that in our daily lives you and I are agents of death and destruction, but we have in ourselves the need and the will to perpetuate life, all life, on Earth. We will carry the fight to the courthouse, to the schoolhouse, to the factory, to the legislature, to the office, and to places of worship. Join us in this epoch adventure to save Mother Earth and our humanity.

Walk ‘n Roll to Church

Contents

- 1 . UU Clean Air Pledge
- 2 . Carpool
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Davis, CA
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Our UU Clean Air Pledge



On my honor,
I pledge to do my share
To keep my community's air clean and clear.

I promise to reduce air pollution from cars
By sharing rides to school,
Taking the bus or train
And biking and walking whenever I can.

I promise to recycle paper, metal, glass and plastic,
And turn off the lights, TV and stereo when I am not using them.

I will plant a tree and use a rake or broom instead of polluting gas
equipment when I am helping with yard work.

I also pledge to remind my family and friends,
That we are the solution to pollution.
We can help everyone breathe easier.

As a Unitarian Universalist,
I am ready to use my open mind, loving heart, and helping hands
To practice our seventh principle,
Which reminds me to care for Earth.

Earth needs me.
Earth needs us all working together to show our love
For this planet
We call home.

* Adapted By the UU Congregation of Davis from the Yolo Solano Air Quality Management District Clean Air Pledge

BASICS FOR SHARING THE RIDE

Did You Know that Carpooling:

- cuts costs;
- reduces CO₂ emissions;
- builds community;
- reduces commuting time by putting fewer vehicles on the road and by allowing you to use HOV (high occupancy vehicle) lanes where available;
- increases parking availability at work and at church; and
- may allow you to take advantage of carpooling benefits from your employer? See: http://www.commuterchoice.gov/employ/list_of_employers.htm for a list of employers who are participating in the EPA's "Commuter Choice" program.

How Do I Start?

- send an email to your fellow employees
- put a poster in your car window (see Car Poster in this Kit)
- organize a trial carpooling experiment in your congregation. (See Pledge to Share the Ride, Clean Air Sunday, and Congregational Carpool Survey in this Kit).
- provide your church committees with the Carpool Matching for Church Events flyer in this Kit and ask that the leaders of committees and ongoing church programs
- Reserve convenient parking for carpoolers, recognize carpoolers at beginning of service or on some occasion.

Insurance

- It is legal to carpool, and you may accept money to drive someone to work. But every insurance company and every state may have different laws and regulations. Please check with your insurance company to insure that you and all of your passengers are covered.

CLEAN AIR SUNDAY

The UU Congregation of Davis, CA has held two annual Clean Air Sundays as part of their UUCD Green Sanctuary Action Plan. In 2007 it was part of a citywide Clean Air Season declared by city government in response to a resolution presented by the congregation. Below, their Green Sanctuary group shares some groundwork planning and the results.

General Clean Air Day Goals

- *To encourage the integration of environmental issues into worship and religious education programs for children and adults. (Religious Education)*
- *To help our church to find ways to live our faith in a way that are best for Earth as well as our community. (Religious Education)*
- Join with Peace and Justice Committee to promote church-wide awareness and understanding of societal environmental justice issues and to develop and implement church projects that rectify environmental injustices.
- Work with other churches and/or groups that rectify environmental injustices beyond the scope of just our church.
- Develop and implement church policies with regard to finances that are in accord with our principles and environmental justice.
- To work with other churches and/or groups that rectify environmental injustices beyond the scope of just our church. (Environmental Justice)
- To motivate, support, and encourage congregants in their personal and social actions for a healthy and sustainable environment. (Sustainable Living)
- To generate commitment for personal lifestyle changes. (Sustainable Living)
- To leave the world a better place for the generations to come. (Sustainable Living)
- Provide worship that grounds our activities in our UU values and beliefs. (Worship)

Specific Goals for Clean Air Day

- Develop cross-generational activities that are fun and bring people together.
- Encourage congregation to “Walk or Roll Together to Church” to build community and reduce emissions for better air quality and lessen impact of global warming.
- Keep track of the amount of air pollution reduced on May 21 by our congregation
- Reach out and invite other congregations to join us.
- Raise awareness of how what we do impact the Environment.
- Distribute materials to educate the congregation regarding air quality, global warming, bike paths and commuting, etc.
- Improve our church Bike rack situation to encourage bike use.
- Facilitate ride-sharing by giving the congregation the opportunity to sign up for carpools.
- Reconfigure the church parking lot to be more accessible for buses.
- Have the Sunday worship service relate to Clean Air Sunday.

What we did in 2006!

At the UU Church of Davis, Earth Day in 2006 was the start of a month of Green Sanctuary activities related to global warming, air pollution, and saving energy:

- On Saturday, April 22, our campus ministry group and members of the congregation marched in the UC Davis Picnic Day parade with signs for the campus ministry and also for Green Sanctuary (UUs for Earth, To Be Powered by the Sun, Walk'n'Roll to Church, Clean Air Sunday - May 21, etc.)
- On Sundays between Earth Day and Clean Air Sunday, we had a huge map of Davis and a smaller regional one. We encouraged everyone to put a pin where they lived and to sign up to bike or rideshare and "Walk'n'Roll Together" to church on May 21.
- We included weekly notes in the church bulletin and articles in the April and May monthly newsletter about our Clean Air efforts and invited members and friends to participate.
- We set up a tabletop kiosk with information on issues related to air quality, pollution, and solar power, forming carpools and biking together to church. We distributed materials on related topics.
- We gave out activities books about the environment to elementary age children
- We set up a "UU Green team" for "Million Mile May" month and all who signed up kept track of their bike miles for the month. The goal was a million miles for the region.
- We developed a bike safety brochure.
- During early May, Eliza Galaher, our church Intern, worked with the GS committee to present a special family service during May on environmental awareness. We introduced a Clean Air Pledge at this service. (*see in this Kit*)
- The grounds committee provided a new bus turn-area for those coming from retirement communities.
- On May 21, 2006 (Clean Air Sunday), the Reverend Elizabeth O. Banks gave services titled "A Blade of Grass and a Star: The Interdependent Web" on global warming in which she related our GS efforts to our principles and purposes as UUs - grounding us theologically.
- We had meeting spots in various parts of town with leaders who lead groups of bikes to church.
- At church, as we did not have enough bike racks for all to park and lock; we set up a corral in a big circle where we could actually see them from the sanctuary.
- We kept a record of all those who biked or carpooled or came by bus and the distances traveled. Using the data, we made an estimate of how much energy we had saved and pollutants reduced.
- We had tire pumps on hand and checked the pressure of tires of both cars and bikes and aired up any that need air.
- We handed out a number of small freebies (tire gages, pads, pens, pins, etc.), and all that walked, biked, took a bus or carpooled got to pick out a small gift.
- The GS committee provided drinks for those biking and after church, light refreshments and "glacial melt" ice cream cones for everyone to celebrate the day.

The whole month was a time of building connections between members of our congregation and enhancing our church community. From the records we collected, we had 52 people who biked or walked a total of 316 miles, which saved about 316# of emissions and 14 gallons of gas. We also had 93 people come in 35 carpools a total distance of 394 miles, also saving gas and emissions. Although some folks did not participate at the last moment because the weather was a bit rainy, we felt the day a great success. We shared the success of this week with the interfaith group, Care for God's Creation, and some faith groups committed to join us in 2007.

What we did in 2007

At the UU Church of Davis, Earth Day in 2007 was the start of a month of Green Sanctuary activities related to global warming, air pollution, and saving energy:

- On April 8, the Davis City Council signed a Resolution, that we had prepared for them, declaring Earth Day through Clean Air Sunday to be Climate Action Season. May 18-21 officially became Clean Air weekend and through the work of Care for God's Creation, a local interfaith group that Judy Moores and Mary Wind, co-chairs of the GS Committee, are part of, the following places of faith joined our Green Sanctuary "clean air" efforts: Davis United Methodist Church, Community Church of Davis, Newman Center, American-Islamic Relations (CAIR-SV), and the Islamic Center of Davis.
- On April 14, Judy Moores participated in an Ecology/Action Panel and described our GS work over the past 2 years at Call To Action, a West Coast conference of the Catholic Church. The conference was held in Sacramento and over 40 people attended the panel discussion.
- On April 14, members of our UU church helped with the Davis event as part of the "Stepitup2007" national effort to encourage congress to tackle global warming and start the work needed to get our carbon emissions down 80% by 2050. Even though it rained, 40-50 people showed up. We collected signatures on the Stepitup2007 petition.
- On April 22, more people attended our church for our Earth Day service than on Easter! The folk group, Mudlark, performed and the Reverend Beth Banks focused the service on water conservation. We gave out our new brochure *101 Things you can do to Make the World More Green*. The congregations was presented with our new official framed Green Sanctuary certificate from UU Ministry for Earth. We collected signatures on Stepitup2007 petitions.
- On May 1, our church was awarded the City of Davis Environmental Recognition Award for a non-profit group. The award included being named on a perpetual plaque at City Hall, a plaque for the church and a City Council Resolution. As part of the festivities, members of the congregation spoke and read the "Message for the Hopi Elders." In addition, they handed out their *101 Things* brochure and copies of the Hopi reading to the City Council and others who attended.
- Throughout May we had a tabletop kiosk with information on issues related to air quality, pollution, forming carpools, etc. to church. We distributed our brochures on biking and *101 Things*.
- In early May we started two sessions of the NWEI class, Discovering a Sense of Place.
- On Clean Air Sunday itself, we had a lovely, low-key event. We had a table, handed out pedometers and tire gauges from our Air Resources District, talked to people about air quality, aired up bike and car tires, and served "Remember the Polar Bear" vanilla ice cream cones after the second service. The latter were very popular as the day was warm. Many people did bike and carpool, some came by bus from a retirement home, and some who drove themselves said, "But I did drive my Prius." All in all, the day became one of gratitude for all that we had accomplished.

Unitarian Universalist Congregation of Santa Fe

"GREEN TRANSPORT SUNDAY"

A pilot for a city-wide Interfaith Project



PURPOSE

The purpose of Green Transport Sunday was two-fold; a) to have a basically fun event, which could engage the entire congregation, and b) to raise awareness as to what congregation members could do to lower their carbon emissions by giving them an opportunity for a practical experience.

PLANNING/DEVELOPMENT

The original idea came out of a unique inter-denominational group our task force called together to brainstorm ideas that participating churches could use to get their congregations involved in experiential activities to help curb global warming. The "BrainStormers," as they became known, represented eight denominations in Santa Fe. Our task force group elected to be the first to try this idea and then share the results with other Santa Fe congregations.

Since our task force uses project teams rather than committees, a 6-person team was assembled to take on the GTS project. The preparation tasks included:

1. Setting the date, relative to other congregation activities.
2. Meeting with the minister to confirm dates and get pulpit support.

3. Developing marketing materials, including notices in the church newsletter and order of service, flyers, and a large foyer display.
[see materials in this Kit]
4. Designing large stickers to be given to each participant to publicly indicate their successful involvement.
5. Designing a large sign-in panel for participants, to be displayed in the church foyer for the two weeks following the event, publicly acknowledging who had participated.

IMPLEMENTING THE PLAN

On the day of the event, everyone arriving for services was met by a welcoming team and, if they had participated, they were given the public recognition sticker and invited to sign the public recognition panel. [see photo] During both services participants were invited to stand and be recognized and congratulated by the congregation.

RESULTS

A final tally indicated that 72% of those attending services had used some form of transportation that had fewer carbon emissions than that which they normally used. The most common alternatives were carpooling, using public transportation, and bicycling. Some participants even used a combination of several, with the use of mass transit being involved in most of the combinations.

The production team and participants felt the project was a great success, both as a fun event and one that greatly raised the congregation's awareness of global warming issues and a very positive thing they could do to help limit its impact. Many of the participants have continued to use their alternative method, with carpooling and the use of public transit being the major changes.

FUTURE

As planned, a follow-up meeting was held with the BrainStormers to report on results and show the materials involved. The project team distributed masters of printed materials so that other congregations would have them available for their own use.

Given the success of this 'pilot model,' the group set a date in early Fall 2007 to coordinate the Green Transport Sunday event with a number of Santa Fe congregations, thus greatly increasing public awareness of this fun and practical method for lowering carbon emissions within the faith community.

MATERIALS/RESOURCES FOR OTHER CONGREGATIONS

Please use the following texts, adding your own font sizes, art, color, and details, as starting points in advertising a Green Transport Sunday in your congregation!

See next page for 2 sample posters!

March 25 is
“GREEN TRANSPORT SUNDAY”

Come to church with lower CO2 emissions!

- Bus North from SF Place: **10:45** am
 - Bus South from bus depot: **11:03** am
- [Bus maps at poster in the foyer]*

- Hiking Is Healthy
- Biking Is Beautiful
- Running Is Radical
- Skating Is Scandalous
- Hitchhiking Is Hilarious
- Piggybacking Is Precious
- Horsebacking Is Handsome

Save gas! Save \$\$!

Save the planet!

*How will YOU get here?
with lower CO2 emissions
On March 25?*

“GREEN TRANSPORT SUNDAY”

- Bike from Borders?
- Walk from Walgreens?
- Rickshaw from Rudy's?
- Hitchhike from Harry's?
- Carpool from Canyon Rd.?
- Traipse in from Trader Joe's?
- Skip in from the Senior Center?

Save gas! Save \$\$!

Save the planet!



CARPOOL MATCHING FOR CHURCH EVENTS

Members of Church Study Groups and Committees are encouraged to rideshare to meetings and activities. Please use this form for your group/meeting to identify those participants willing to drive or seeking to rideshare to church events. Use this form at the first meeting of your group. Thank you.

<u>Name</u>	<u>Phone / Email</u>	<u>Address</u>	<u>Drive/Ride</u> <u>(check one or both)</u>
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The idea for this form comes from the UU Community Church of Santa Monica

CONGREGATIONAL CARPOOL SURVEY

Name:

Phone:

Physical Address:

Email:

Please check the appropriate boxes and fill in the blanks.

Yes, I am interested in carpooling to church.

There are a total of _____ people in my household who need a ride.

I prefer to drive.

I prefer to be a passenger.

I have no preference. I will drive or be a passenger.

If driving, I can take _____ additional passengers.

I attend church on a regular basis.

I attend church occasionally.

I usually leave my home for church at _____.

I am flexible by _____ minutes.

I usually leave church at _____.

I am flexible by _____ minutes.

CONGREGATIONAL CARPOOL SURVEY

Name:

Phone:

Physical Address:

Email:

Please check the appropriate boxes and fill in the blanks.

Yes, I am interested in carpooling to church.

There are a total of _____ people in my household who need a ride.

I prefer to drive.

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If driving, I can take _____ additional passengers.

I attend church on a regular basis.

I attend church occasionally.

I usually leave my home for church at _____.

I am flexible by _____ minutes.

I usually leave church at _____.

I am flexible by _____ minutes.

CARPOOLERS WANTED

This poster inspired by www.carpool.ca



FROM:

TO:

DAYS OF WEEK:

COMMUTING TIMES

Start:

Flexible By _____ Minutes

Finish:

Flexible By _____ Minutes

CONTACT INFO:

Name:

Phone:

Email:



A Free Resource for UUs

Wish you could save money, gas, and the environment, all on your way to church? Well, walking and biking are great, but it's so hard to find carpoolers . . . until now! Mark Evanoff, President and founder of the AlterNetRides Company (and a member of the Walnut Creek, CA UU Church), is offering his online, completely automated rideshare/carpool service to UUs free of charge! This service is used by:

First UU Church of Houston, TX
Mt. Diablo UU Church, Walnut Creek CA
Unitarian Universalist Church of Davis, CA
UU Church of Weymouth, MA
UU Congregation Of Atlanta, GA

In general, your church is set up as a destination and you place a link on your church web site. When your link is clicked, the "AlterNetRides Applet" appears with your church banner and name. The congregant becomes a member and the system automatically walks them through setting up a ride to your church. In moments they are viewing others wanting to carpool to service. AlterNetRides protects each person's privacy. No home addresses or surnames are used, nor are emails given out. AlterNetRides also uses Yahoo! Mapping Technology so people can mark their starting location making it easy for people to see who lives close by. Each church AlterNetRide web page is "Private" and exists only on that church's website.

You can also make your place of employment aware of this service. While not free for companies, AlterNetRides is inexpensive and a great added benefit for employees. It is used by hundreds of organizations around the country including Lockheed-Martin, Oracle, Rutgers University and many more.

For more information you can contact Mark Evanoff at 925.952.4519 or email him at mevanoff@alternetrides.com. You can also visit: www.AlterNetRides.com



HOLD A BIKE FAIR

1. When? May is bicycle month. If not then, think about holding your fair in conjunction with a sustainable travel to worship event or earth day.
2. Invite local bike shops and biking enthusiasts to participate and have them bring examples of bicycles for all ages, terrains, tastes, and budgets.
3. Host a Q&A where bikers can share stories and answer questions about biking to work and using bikes for recreation.
4. Bikes often need a tune up after the long winter; so invite some local bike shops or experienced bikers to offer free tune-ups.
5. Have maps and displays of local biking trails, favored biking routes and bike parking locations in your town, county and state.
6. Invite children to participate in a parade of bikes and offer prizes for decorated bikes.
7. Offer a used bike sale or exchange

Thanks to the Environmental Action Committee, First Unitarian Society of Madison, WI
for inspiring this page

GLOBAL WARMING PLEDGE

4-5-6

Portsmouth, NH Adds Steps
To Help Curb Climate Change



Left to right, Heather Parker, Judy Miller and Nancy Hoop, the tree artist

The Ministry for Earth (MFE) at South Church, the Unitarian Universalist church in Portsmouth, NH, has a project to educate people about Climate Change and to help them to reduce carbon emissions. The project began in January 2007 with the introduction of the Response to Global Warming 1-2-3 Pledge from the UU Ministry for Earth Global Warming Action Kit, Volume 1. The original Pledge asked participants to complete the original three Actions: Step 1 to reduce the thermostat in your home by at least 1 degree in the winter and raise it by at least 1 degree in the summer; Step 2 to reduce your driving speed when going over 60 mph by at least 2 mph; and Step 3 to use at least 3 compact florescent light bulbs. The Portsmouth church then added three additional steps to the 1-2-3 Pledge developed by Portland, Oregon UUs.

STEP 4: SAVE 1500 LBS OF CO2 EMISSION (the amount called for by the 1990 Kyoto Protocol) FOR EACH PERSON IN YOUR HOUSEHOLD.

Participants were provided with an audit worksheet (see worksheet) with lots of suggestions on how to cut CO2 emissions with the number of pounds of CO2 saved. This worksheet was adapted from the one used at the Saco Biddeford UU church in Maine.

STEP 5: SHARE YOUR IDEAS WITH OTHERS ON HOW TO CUT EMISSIONS.

STEP 6: TALK TO AT LEAST 6 PEOPLE OUTSIDE OF SOUTH CHURCH ABOUT REDUCING CARBON EMISSIONS.

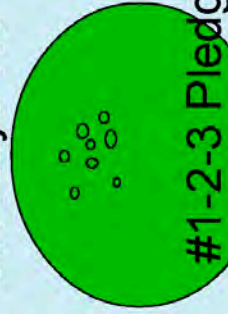
To display the results, a beautiful Green Sanctuary Tree has been painted by Nancy Hoop, a member of the MFE committee, on one of the walls in the Fellowship Hall (see photo). For the completion of the 1-2-3 Pledge, a leaf with the name of the person/family is placed on the tree. For completing the Audit Worksheet (#4), an apple with the name and number of pounds of CO2 saved is placed on the tree. A yellow flower is used to present a new idea (#5) and a bird for speaking to at least 6 people outside of the church (#6).

The results of this 6 STEP initiative are tracked month on a chart near the MFE table at Coffee Hour each Sunday where volunteers explain and give out the forms and put up the leaves, apples, flowers and birds. (*see chart in this Kit*)

How Green is South Church?



Six Ways We Can Make a Difference to Stop Global Climate Change



#1-2-3 Pledge

#1

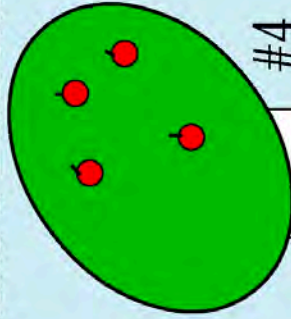
Reduce the thermostat by 1 degree

#2

Reduce driving speed by 2 miles per hour

#3

Replace 3 regular light bulbs with compact fluorescent bulbs

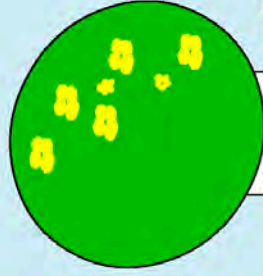


#4

Energy Audit and Worksheet

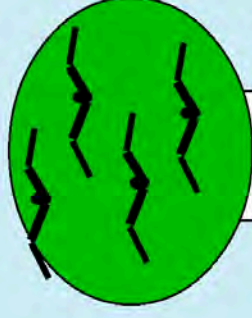


Based on Kyoto Accord's goal of reducing CO₂ emissions by 1500 pounds per person annually



#5

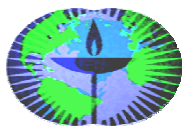
Tell Us Your Ideas on How to Reduce CO₂ Emissions



#6

Talk to Six People About How They Too Can Make a Difference

Filled-in Tree Trunks Show Number of Families and Individuals Taking Action



Help Stop Global Climate Change!

Step #4: How to Reduce CO₂ Emissions, Energy Audit/Worksheet

Our Goal: Save 1500 pounds of carbon dioxide emissions per person annually.

This goal came from the **1990 Kyoto Accords**, which suggests that each person reduce his/her CO₂ emissions by 1500 pounds and that business, industry and government reduce another 3000 pounds of CO₂ emissions reduction per person. Experts believe we have only another decade to do both these things if we are to avoid catastrophic global climate change. Consider lobbying your Congress people to get them going on their end! And of course, any additional reductions beyond 1500 pounds that you can make at home are very worthwhile.

There are many ways to reduce emissions, and the Audit/Worksheet below will give you ideas on how to do more than you have already. If you have ideas of your own, please come share them with us. We'll write them on Yellow Flowers and put them on the Green Sanctuary Tree in the Fellowship Hall. Below are a few ideas we'd like to share with you that don't lend themselves easily to computations of numbers of pounds of CO₂ emissions reduced.

- Replace meat with vegetarian meals. Factory-farmed meat production is considered to be one of the major contributors of global warming by the Union of Concerned Scientists.
- Buy organic produce. Buy locally produced food (less transportation needed).
- Write your legislators about environmental issues. (See sample letters at the Ministry For Earth table in the Fellowship Hall during coffee hour.)
- Vote for political candidates who will fight to stop global climate change.
- Educate others; consider talking to six people about how they might help.

The Audit/Worksheet below was adapted by South Church, State Street, Portsmouth NH, from the Maine Interfaith Climate Change Initiative for Faith Communities. CO₂ emissions reductions listed below are average estimates and were derived from the US EPA, the Environmental Defense Fund, the Children's Earth Fund, the National Audubon Society and the Co-Op American Quarterly.

How to Participate:

1. On the following pages are practices to reduce CO₂ emissions. Give yourself credit for those practices you have implemented in your life since 1990, and give yourself credit for any new practices you are pledging to now implement in your or your family's life. Remember, doing more also saves you more money.
2. Add up the totals on each page and at the end, hopefully, you have reached or exceeded the Kyoto goal of reducing 1500 pounds of CO₂ emissions per person annually on an ongoing basis. This will be a harder goal for families to meet than for individuals. Don't get hung up on the exact numbers, it's OK to extrapolate. When you have finished, we'd love to hear how many pounds of CO₂ emissions that you and/or your family have reduced. It's more fun when we work together! Come add your name with your CO₂ emissions reduction number to an Audit Apple and place it on the Green Sanctuary Tree. We thank you and the earth thanks you.

Let's begin:

Electricity

Hint: Use power strips to turn off phantom loads on stereos, microwaves, TVs, etc.

Lights

Hint: Reduce more by purchasing **Green Power**, electricity that is generated from renewable sources such as solar, wind, hydro, geothermal or biomass.

Prorate below if different wattages are used:

1. Replace 100-watt incandescent bulbs with a 27-watt compact fluorescent bulbs:
For each CFB used, 160 pounds CO₂ emissions reduced _____
2. Replace 75-watt incandescent bulbs with 27-watt CFLs
For each CFB used, 120 pounds CO₂ emissions reduced _____
3. Turn lights out when you leave a room
120 pounds CO₂ emissions reduced per room _____

Lights Subtotal

Hot Water Usage

1. Give your hot water heater a jacket of insulation
Electric, 660 pounds CO₂ emissions reduced _____
Oil, 360 pounds CO₂ emissions reduced _____
Gas, 260 pounds CO₂ emissions reduced _____
2. Drop the hot water temperature 10 degrees F (but keep above 120)
Electric, 660 pounds CO₂ emissions reduced _____
Oil, 400 pounds CO₂ emissions reduced _____
Gas, 290 pounds CO₂ emissions reduced _____
3. Do 4 out of 5 washing machine loads in cold water
Electric, 460 pounds CO₂ emissions reduced _____
Oil, 280 pounds CO₂ emissions reduced _____
Gas, 200 pounds CO₂ emissions reduced _____
4. Use low-flow showerheads
Electric, 920 pounds CO₂ emissions reduced _____
Oil, 560 pounds CO₂ emissions reduced _____
Gas, 400 pounds CO₂ emissions reduced _____
5. Install a solar thermal system to help provide hot water
720 pounds CO₂ emissions reduced _____

Hot Water Subtotal

Home Appliances

Hint: Look for **Energy Star** when replacing appliances and save up to 40%!

1. Buy a new refrigerator; recycle at the landfill the old inefficient one.
220 pounds CO₂ emissions reduced _____
2. Run your dishwasher only when full. Use the energy-saving dry
Setting (don't use heat to dry): 200 pounds CO₂ emissions reduced _____
Buy a new high efficiency, low-water washing machine
440 pounds CO₂ emissions reduced _____

Home Appliances Subtotal

Home Heating and Cooling

Hint: Ask your utility company for a home energy audit to find out where your home is poorly insulated or energy-inefficient. Prorate below, if appropriate.

1. Consider replacing your windows with energy-saving models
Up to 10,000 pounds CO₂ emissions reduced _____
2. Heat some or your entire house with wood. Wood is a renewable energy sources so will not add any net CO₂. Your wood stove must have a catalytic converter to not pollute the air.
(prorate below if more is reduced)
Reduce 100 gallons of oil; 2,220 pounds CO₂ emissions reduced _____
Reduce 100 gallons of bottled gas 1,300 lbs CO₂ emissions reduced _____
3. Nudge the thermostat down one degree or more.
Electric, 410 lbs or more CO₂ emissions reduced _____
Oil, 250 lbs or more CO₂ emissions reduced _____
Gas, 180 lbs or more CO₂ emissions reduced _____
4. Turn the thermostat down 10 degrees F at night.
Electric, 2,070 lbs or more CO₂ emissions reduced _____
Oil, 1,260 lbs or more CO₂ emissions reduced _____
Gas, 900 lbs or more CO₂ emissions reduced _____
3. Turn the air conditioner's thermostat up one or more degrees.
220 lbs or more CO₂ emissions reduced _____
4. Get an annual tune-up. Replace filters. Save 5% of energy used.
Air conditioner: 220 pounds CO₂ emissions reduced _____
Electric furnace: 1,030 pounds CO₂ emissions reduced _____
Oil furnace: 640 pounds CO₂ emissions reduced _____
Gas furnace: 450 pounds CO₂ emissions reduced _____
5. Caulk or plug up leaks around windows and doors with weather-stripping and close shades and curtains at night
Electric, 1,600 pounds CO₂ emissions reduced _____
Oil, 1000 pounds CO₂ emissions reduced _____
Gas, 700 pounds CO₂ emissions reduced _____
6. Insulate walls and ceilings; this can save about 25%
Up to 2,000 pounds CO₂ emissions reduced _____

Home Heating and Cooling Subtotal

Reduce, Reuse and Recycle

Hint: Reduce waste; buy minimally packaged goods; choose reusable products over disposable ones; recycle. The less we manufacture, the more energy we'll save!

1. Recycle aluminum cans, glass bottles, metal cans, plastics, cardboard, and newspapers.
Recycle 25% of your garbage can: 850 pounds CO₂ emissions reduced

Reduce, Reuse and Recycle Subtotal

Transportation

Hint: If your car has an air conditioner, make sure its coolant is recycled whenever you have it serviced as coolant gases are much more active greenhouse gases than CO₂; save thousands of pounds of emissions this way.

1. Whenever possible, walk, bike, carpool or use mass transit. Whenever possible when driving, use the most efficient route.

For every gallon of gasoline not used, you reduce CO₂ emissions by 20 pounds

_____ number of gallons times 20 = _____

2. Trade in the gas-guzzler auto for a fuel-efficient one that gets five miles more per gallon
Up to 2,000 pounds CO₂ emissions reduced

Trade in the gas-guzzler auto for a fuel-efficient one that gets five miles more per gallon
Up to 4,000 pounds CO₂ emissions reduced _____

3. Carpool, leave your car home 2 days per week
1,590 pounds CO₂ emissions reduced _____

4. Tune-up your car annually
900 pounds CO₂ emissions reduced _____

5. Combine car errand into one fuel-saving trip
500 pounds CO₂ emissions reduced _____

6. Keep car tires properly inflated
250 pounds CO₂ emissions reduced _____

7. Flying produces about .9 lbs of CO₂ emissions per person per mile,
whereas mass transit produces about .5 lbs per person per mile.

CO₂ emissions reduced = .4 times X _____ miles of shorter trip = _____

Transportation Subtotal

In the Yard

Hint: Plant trees next to your home and paint your home a dark color in cold climates

1. Use a push mower instead of a power mower
80 pounds of CO₂ emissions reduced _____

2. Plant a tree on the south or west side of your home to provide cooling shade
150 pounds of CO₂ emissions reduced _____

In the Yard Subtotal

Schools, Businesses and Community

Hint: Make sure lights, heat and office equipment are turned off or lowered each night. Use power strips to turn off phantom loads on computers, printers and other office equipment.

Work at your business or in your community to set up recycling programs.

For every pound of office paper recycled, 4 lbs of CO₂ emissions

4 times X _____ number of pounds = number of lbs CO₂ reduced = _____

1. If your job allows, work at home one day a week and reduce 20 lbs of emissions

For each gallon of gas not used:

_____ number of gallons times per week times 20 times number of weeks = _____

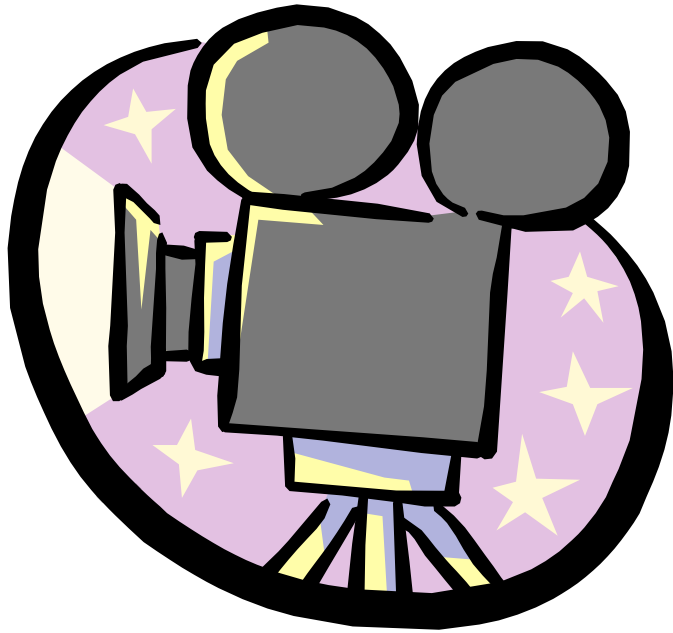
2. Replace some business travel with video conferencing, email or phone communication.

880 pounds of CO₂ emissions reduced for every 500 miles not traveled _____

Schools, Businesses and Community Subtotal

Add up the subtotals and see how close you came to the Kyoto Accords goal of 1500 pounds per person annually. Please place your name and total on the Green Sanctuary Tree in the Fellowship Hall, and then we invite you to take **Steps 5 & 6** to help stop global warming. And thank you!!!

Grand Total of Pounds of CO₂ Emissions Reduced



LIGHTS, CAMERA, TAKE ACTION ON THREAT OF GLOBAL WARMING

A Partial Annotated List of films concerning climate change and extinction of species.

Many UU Congregations are choosing to host films or film festivals as part of their work to implement the 2006 UUA Statement of Conscience on the Threat of Global Warming.

This list was assembled and annotated by D. Bruce Langmuir, (First Parish of Sudbury, UU). It was last updated December 8, 2006, and does not include films released after that date.

For each film there is both the promotional description for the film (in quotes) and Bruce's comments (In *italics*) and a web address or mailing address indicating where film can be purchased.

1) The **Day After Tomorrow** – *While clearly a science fiction film, it is based on real science. View and compare the film with reality in discussion. Rated PG-13. The special effects terrific & totally cool. This film would be a great kick-off to a youth group discussion. 123 minutes*
<http://www.amazon.com/exec/obidos/tg/detail/-/B0002MB7R6/103-4740123-7615062?v=glance>

"The film's special effects are worth seeing. In the movie, Dennis Quaid plays a climatologist who tries to figure out a way to save the world from abrupt global warming (climate change abrupt beyond reality). He must get to his young son (Jake Gyllenhaal) in New York City, which is being taken over by a new ice age. (Again far too abrupt to be real.) Emmerich has had the FX people to digitally scan the entire island of Manhattan. This was done for a huge scene where a gigantic tidal wave washes over the city and a scene of a giant oil tanker floating between the skyscrapers. LA is also torn apart by tornados, adding that much of the story is focused on the survival of the human race after the ice age hits."

2) **Global Warming and the Greenhouse Effect** – *An educational film, very good for teenagers and up. Starts with the basics in science, works up and could be called "global warming 101". From Educational Video Network (EVN) in Huntsville, TX, a leading source for educational videos and DVDs, primarily, but not restricted for 9th through 12th grades. A low key film with nothing sensational to upset the younger ones. 20 minutes, with Study Questions & Answers. Study Questions and Answers are available from the web site and have been written for students (all ages) who have watched film. EVN #1686D. http://www.evndirect.com/shopping/product_details.php?id=1686 specifically for film. Home web page and telephone for EVN: <https://www.evndirect.com/index.php> and 936-295-5767 and 800-762-0060.*

"Learn what creates the Greenhouse Effect and discover how it affects weather patterns all over the world. Understand that we must take the threat of global warming seriously to ensure the continued survival of our

species, as well as thousands of other species in USA and around the globe, many of which have already become extinct.”

“All forms of life on earth are threatened by global warming. In the video a female narrator clearly and precisely explains the meaning of greenhouse effect, greenhouse gases, global warming and the implications of them all. Graphics, contemporary as well as historical, film footage, onscreen printed definitions and maps are utilized. Human activities, especially the use of fossil fuels, contribute to global warming, an increase in the earth's temperature. This program concludes with ideas and suggestions on how we can help conserve energy and get involved. Each section of the video could serve as a lecture launcher and create numerous research projects for students in environmental and social sciences classes. It's everyone's responsibility to keep the earth a hospitable place for future generations, and this video presents that message successfully.”

3) **Life in the Greenhouse** – *An educational film, very good for teenagers and up. Starts with the basics in the science of earth's greenhouse and works up. The greenhouse effect is worked into global warming. From Educational Video Network (EVN) in Huntsville, TX, a leading source for educational videos and DVDs, primarily, but not restricted for 9th through 12th grades. A low key film with nothing sensational. In some respects a companion film to **Global Warming and the Greenhouse Effect**, described above. 22 minutes, with Study Questions & Answers. Study Questions and Answers are available from the web site and have been written for students (all ages) who have watched film. EVN #1685D. https://www.evndirect.com/shopping/product_details.php?id=1685 specifically for film. Home web page and telephone for EVN: <https://www.evndirect.com/index.php> and 936-295-5767 and 800-762-0060.*

“Today we are seeing the delicate environment necessary to create and sustain life altered by man-made pollutants. Find why it is imperative that people find ways to reverse this dangerous trend.

- 1) Students will understand that there is a delicate balance between enough and too much carbon dioxide in our planet's atmosphere.
- 2) They will learn how carbon dioxide is introduced into the atmosphere.
- 3) Students will learn what the 'Greenhouse Effect' is. They will understand how heat becomes trapped in our planet.
- 4) Students will discover that even a slight increase in [global] temperature can result in disaster for the Earth and for the people who populate the Earth.”

4) **Hot Times In Alaska** – *A excellent PBS 2004 Scientific American Frontiers film shows how Alaska has warmed up much more than the average global temperature. 60 minutes; teenagers and up.*
<http://www.pbs.org/> or specifically for the film (hyperlinked web address below is two lines long),
<http://www.shoppbs.org/product/index.jsp?productId=1817594&cp&keywords=Hot+Times+In+Alaska&y=4&searchId=10394688289&x=23&parentPage=search> Approx. \$30 PBS Item #SAMF6404 Good technically w/ surround sound.

“Alaska is warming up. It's now a few degrees warmer than it was a century and a half ago, and the trend seems to be accelerating. Already the landscape is changing dramatically -- permafrost is thawing, glaciers are melting, forests are succumbing to drought and insect attack. Alan Alda meets Alaskan scientists who are working to find out if these are the first signs of global warming and what the future may hold.”

5) **Hydrogen Hopes** – *An excellent PBS 2005 Scientific American Frontiers film shows how hydrogen can be created for cars and may become a reality and one of the ways to reduce use of fossil fuels. It also shows solar photovoltaic cells (and their manufacturing) that can be used as roof shingles to generate electricity to make hydrogen or power buildings. Approximately 30 minutes; teenagers and up. <http://www.pbs.org/> or specifically for film (web address is 2 lines long),*

<http://www.shoppbs.org/product/index.jsp?productId=1932794&cp&keywords=Hydrogen+Hopes&y=8&searchId=5410512870&x=35&parentPage=search> Approx. \$20 PBS Item #SAMF6606 Good technically w/ surround sound.

"Will hydrogen ever become the oil-replacement fuel that many in industry and government are betting on? Can hydrogen help avert a global warming crisis? How can we create hydrogen from renewable sources like the sun - and how do we store it safely once we've got it? - Alan Alda meets with hydrogen enthusiasts working toward a future when hydrogen can be made in unlimited quantities from renewable, non-polluting resources."

6) **Hot Planet – Cold Comfort** – *A PBS 2005 Scientific American Frontiers film hosted by Alan Alda. Deals with the ocean's global circulation and how it affects climates. Approx. 30 minutes; teenagers and up.* <http://www.pbs.org/> or specifically for film (web address is 2 lines long), <http://www.shoppbs.org/product/index.jsp?productId=1932801&cp&keywords=Hot+Planet+Cold+Comfort&y=6&searchId=5410563061&x=23&parentPage=search> Approx. \$20 PBS Item #SAMF9505 Good technically w/ surround sound.

"So you think global warming won't affect you? Wait until the great Atlantic Conveyor (ocean circulation) shuts down resulting in some significant changes. *Hot Planet – Cold Comfort* examines the latest warnings from scientists that large-scale changes in the earth's natural systems are taking place, with potentially serious consequences for the climate. And find out what's already happening in Alaska."

7) **Future Car** – *A PBS 2004 Scientific American Frontiers film. Alan Alda visits the research labs and testing tracks of the Big Three – GM, Daimler Chrysler, and Ford – to learn how automakers are developing cars that conserve oil and reduce pollution.* <http://www.pbs.org/> or specifically for film (web address is 2 lines long), <http://www.shoppbs.org/product/index.jsp?productId=1798219&cp&keywords=Future+Car&y=5&searchId=5410568940&x=29&parentPage=search> Approx. \$30 PBS Item #SAMF6403 Good technically w/ surround sound.

"Find out what people will be driving in the future. Alda test-drives several hydrogen-fueled cars still in development. The search for a fast, safe, exciting and non-polluting fuel-cell car takes Alda from Germany to California to Iceland, which is attempting to become the first nation to entirely replace imported petroleum with domestically produced hydrogen."

8) **Blue Planet** – *A NASA, IMAX film with fabulous photography and surround sound. See NASA photographs taken from space showing how landforms have changed the face of the earth from natural forces and humankind. Filmed in 1993, DVD 2001. While the film was done over ten years ago, most of it is still quite pertinent. 42 minutes; filmed for children, very informative for all ages.* <http://www.amazon.com/exec/obidos/tg/detail/-/B00005BCKI/103-4740123-7615062?v=glance>

"*Blue Planet* reveals the Earth to us as only few people have ever seen it; from space. Orbiting 200 miles above Earth's surface, we can see familiar landforms: the majestic Himalayas, giant Namibia desert sand dunes, jewel-like Caribbean islands, from this unique vantage point we see how natural forces – volcanoes, earthquakes and hurricanes – affect our planet, and how a powerful new force-humankind – has begun to alter the face of the Earth. From Amazon rain forests to Serengeti grasslands, *Blue Planet* inspires a new appreciation of life on Earth, our only home. – *Blue Planet* was filmed in the IMAX format and exhibited in IMAX theaters worldwide. This version is digitally mastered from the original IMAX 70mm film elements with sound components specially mixed and mastered to produce the highest quality Dolby Surround soundtrack."

9) **Keeping the Earth: Religious and Scientific Perspectives on the Environment** – *This inspirational video calls on all Americans to serve as good stewards of the natural world. Prominent scientists and religious leaders offer their perspective on the need to protect our environment and the*

diverse species that share it. Union of Concerned Scientists (UCS), 1996. 27 minutes. DVD and VHS. Includes printed study guide.

<http://www.ucsusa.org/publications/report.cfm?publicationID=308>

"Science and religion have traditionally pursued parallel paths in struggling to decipher the mysteries of the universe. But growing concern about imminent environmental disaster has precipitated a convergence, brought to life in this engaging, thought-provoking documentary narrated by James Earl Jones and produced by the Union of Concerned Scientists with the National Religious Partnership for the Environment.

The perspectives of luminaries from both worlds are skillfully interwoven—each segment opens with Scripture then segues into scientific and religious explications of the topic—exhorting us to mend our wanton ways or risk an apocalyptic fate of biblical proportions.

"Nature is God's textbook, God's gift to existence," says Jewish theologian Ismar Schorsch. Destroying a species of Creation is like tearing a page out of Scripture. Instead of protecting what we've been given, Jones chides with the imperious voice of the deity, we're squandering it, at an ever-accelerating pace. Images of human activity—miles-long traffic jams, plants spewing industrial emissions, logging, sprawling housing developments—show the extent of our handiwork.

"We could lose as much as twenty percent of the world's species in the next thirty years or so if we don't take stronger measures," says biologist E. O. Wilson flatly. His words linger as we see a tiny bird nesting in a stately cactus stranded in a giant parking lot, then cut to bulldozers in the blazing desert sun clearing towering saguaro cacti and everything else in their path, to make way for what? More parking lots? Strip malls?

"We have to scale back in our frenzied activity to reflect on who we are, why we're here, and where we're going," says Christian Environmental Council Chair Calvin DeWitt. "We as good stewards of the Creation are obligated not to destroy [it]."

While some technocrats claim that science will save us from our excesses, scientists here argue that such a view is not only naive but misses the point. "It's a question of values, a moral and ethical challenge as to how we treat the environment we so critically depend on," says physicist and Nobel laureate Henry Kendall. "We cannot be rescued by science and technology, because these problems ...are human problems and have to be dealt with as such."

Because we know how much we're damaging the planet, the situation is not just an environmental crisis but a moral one. This is where scientists and religious leaders hope their alliance can spark a new environmental activism, calling upon Earth's religious and secular citizens alike to become its missionaries."— L.G. 1996

10) The End of Suburbia: Oil Depletion and The Collapse of The American Dream –

This film has had a number of top reviews, many saying it is the best film of the year in 2004, and unfortunately not well known. Directed by Toronto filmmaker Gregory Greene. With a minimum of lefty hysterics, the documentary explains how America is about to go Mad Max on us. The simple truth is we are literally running out of gasoline. When that happens life in the suburbs could become ominously quiet as the American suburban way of life ceases with no fuel to drive our hungry cars as hydrogen and ethanol will not be able to keep up with the power demands of the world's ever-increasing population. 78 Minutes Available on the web from Solar Living Institute.

<http://www.endofsuburbia.com/>

"Since World War II North Americans have invested much of their newfound wealth in suburbia. It has promised a sense of space, affordability, family life and upward mobility. As the population of suburban sprawl has exploded in the past 50 years, so too the suburban way of life has become embedded in the American consciousness.

Suburbia, and all it promises, has become the American Dream.

But as we enter the 21st century, serious questions are beginning to emerge about the sustainability of this way of life. With brutal honesty and a touch of irony, *The End of Suburbia* explores the American Way of Life and its prospects as the planet approaches a critical era, as global demand for fossil fuels begins to outstrip supply. World Oil Peak and the inevitable decline of fossil fuels are upon us now, some scientists and policy makers argue in this documentary.

The consequences of inaction in the face of this global crisis are enormous. What does Oil Peak mean for North America? As energy prices skyrocket in the coming years, how will the populations of suburbia react to the collapse of their dream? Are today's suburbs destined to become the slums of tomorrow? And what can be done NOW, individually and collectively, to avoid *The End of Suburbia* ? "

11) **We Are All Smith Islanders** – *Film Shows Grave Dangers and Promising Solutions Associated with Global Warming in Chesapeake Region. In an effort to make global warming a top local priority, the Chesapeake Climate Action Network released a dramatic documentary film about the dangers and solutions associated with our changing climate in Maryland, Virginia and D.C. " A 2004 video. While Chesapeake Bay based, the film clearly deals with US national issues, problems and solutions from global warming and climate change. An excellent film good for teenagers (possibly younger) and up (adults). VHS video length about 35 minutes.*

http://www.chesapeakeclimate.org/ccan_documentaries.htm

"The film, titled "We Are All Smith Islanders," begins with a description of how global warming is already endangering the very existence of fishing communities on Smith Island, the last inhabited island in Maryland's portion of the Chesapeake Bay. The film also documents how global warming is presently affecting agriculture, wildlife, health and tourism in our region -- and how this crisis will deepen without immediate action. Finally, the film details the many clean-energy solutions available in the region that can help slow and perhaps ultimately help stop global warming, and so save Smith Island and all the inhabitants of Maryland."

"The film contains many previously unreported facts about global warming in the region. For example, in 1900, the geographic center of the U.S. maple syrup industry was not New England but Garrett County, Maryland. Today syrup making has largely disappeared from western Maryland due to warming. The mayor of Alexandria, Va., meanwhile, is extremely concerned that sea-level rise will soon devastate businesses and residents in his city. And global-warming-enhanced heat waves are – according to Johns Hopkins University officials – projected to kill many more people in the future (especially in poor D.C./Baltimore neighborhoods) than any other natural disaster."

The film was written, directed, and filmed by Mike Tidwell and Mark Cohen.

12) **Fighting Global Warming One House At A Time** – *The short film shows several ways each home can drastically reduce their energy needs while saving money. Solar hot water, photovoltaic, high efficiency refrigerators, and organically grown corn used for heating stoves are included. A Chesapeake Climate Action Network produced film, and applicable to all of US. Good film good for teenagers (possibly younger) and up (adults). An extension of their "We Are All Smith Islanders". VHS video. Film length about 20 minutes. http://www.chesapeakeclimate.org/ccan_documentaries.htm (Same source as We Are All Smith Islanders.)*

13) **God's Creation and Global Warming** – *Produced by National Council of Churches Eco-Justice Working Group. This important video describes God's call to be stewards of creation, the threat of global climate change and why this issue is so important to many people of different faiths. It is 12 minutes long and provides a good introduction to this issue for people of faith." Film provides*

basis for taking action on morals and ethics, and the bible. A good powerful film for all, including atheists. Could serve as a sermon during a regular church service, or to show it to the public. To order call (800) 762-0698 or on the web at <http://www.webofcreation.org/ncc/climatechange/warmvid.html> “

Web of Creation, Transforming Faith-Based Communities for a Sustainable World is in the National Council of Churches Eco-Justice Working Group. The web pages below are an excellent source of the many ways on how congregations might approach the threat of global warming, green congregations, the environment, etc. Present guidelines and suggestions. <http://www.webofcreation.org> and <http://www.webofcreation.org/greeningcongregation/>

This is a division of:

NATIONAL COUNCIL OF CHURCHES
475 Riverside Drive, #812,
New York, New York 10115
(212) 870-2385/2386 Fax: (212) 870-2265
E-mail: ECOJUSTICE@NCCCUSA.ORG

14) ***Prevailing Winds in Denmark*** – *A video of trip to Blavand, Denmark by Cape Cod residents to see a wind farm off the west coast there and help them evaluate the Cape Wind Project, of around 130 windmills, being proposed for the Nantucket Shoals, Massachusetts. The Horns Rev Wind Farm in Blavand, Denmark has around 80 windmills that are around the same distance from shore as they would be for the Cape Wind Project, and near towns that are similar socioeconomically and also have much tourism. Filmed in 2004 and 27 minutes long. Available in either VHS or DVD for \$10 plus a donation. Produced by Clean Power Now, of Hyannis, MA on Cape Cod. To order call 508-775-7796 or on the web at <http://cleanpowernow.org/>*

15) ***Change of Course*** – *A video which deals with the pros, cons and myths of the Cape Wind Project, of around 130 windmills, being proposed for the Nantucket Shoals, Massachusetts. Film covers several public hearings on the Project. The hearings cover economic, environmental and visible concerns. Sections of the film show the Danish Horns Rev Wind Farm of 80 windmills to give positive and neutral replies to those objecting to the Cape Wind Project; these being portions of the Prevailing Winds in Denmark film. Film closes with a remark by Pulitzer Prize Winning author Ross Gelbspan: “Cape Wind could be a flagship project of what we can do in America.” Released February 16, 2005 and 19 minutes long. Available in either VHS or DVD for \$10 plus a donation. Produced by Clean Power Now, of Hyannis, MA on Cape Cod. To order call 508-775-7796 or on the web at <http://cleanpowernow.org/>*

16) ***In Hot Water*** – *A film shown during the New England Aquarium’s World of Water Film Series of 2003. “In Hot Water examines the issue of global climate change and how it relates to the oceans.” Produced by New England Aquarium in cooperation with the Bermuda Underwater Exploration Institute. Available in VHS only in 3/05, but making DVD version. VHS cost \$12.95 plus shipping. Film length 24 minutes. To order call New England Aquarium Gift Shop, 617-973-5266, or email them at giftshop@neaq.org, or on the web at <http://neaq.org/>, and on the web page it may be listed under Shop Online. May have to request from New England Aquarium Gift Shop manager. May also be obtained by special request to: Bermuda Underwater Exploration Institute, Oceans Gift Shop, 40 Crow Lane, East Broadway, (Hamilton) Pembroke HM 19, Bermuda, Tel: 441-292-7219, E-mail: info@buei.org, web: <http://www.buei.bm/>*

“Host Peter Benchley takes us to the frozen pack ice of the Arctic, the temperate wetlands of the Chesapeake Bay, and the tropical islands of the South Pacific to see the dramatic impacts of climate change. Our ocean ecosystems are changing in ways we are only beginning to understand, and the whole world from polar bears to people, is feeling the effect. Find out which individual actions you can take to make smarter more energy-efficient choices.”

17) ***Ice Island*** – *A film shown during the New England Aquarium’s World of Water Film Series of 2003. Also available is a companion book by Greg Stone, a “coffee table” type publication. Filmed when the world’s largest iceberg calved in 2000. Video available in DVD only. DVD \$24.99 and optional book \$29.95, plus shipping. Film length 54 minutes. To order call New England Aquarium Gift Shop, 617-973-5266, or email then at giftshop@neaq.org, or on the web at <http://www.neaq.org/> and on the web page it may be listed under Shop Online. May have to request from New England Aquarium Gift Shop manager. Filmed by National Geographic Society, New England Aquarium and Bermuda Underwater Exploration Institute. May also be obtained by special request to: Bermuda Underwater Exploration Institute, Oceans Gift Shop, 40 Crow Lane, East Broadway, (Hamilton) Pembroke HM 19, Bermuda, Tel: 441-292-7219, E-mail: info@buei.org, web: <http://www.buei.bm/> Not shown in catalogs or on web pages.*

“When the world’s largest iceberg calved off Antarctica in early 2000, marine biologist Greg Stone and photographer Wes Skiles saw it as an invitation. Assembling a team of scientists, explorers, sailors and a helicopter pilot, they set off on the intrepid little *Braveheart* for the Southern Ocean to find and study this anomaly.”

“*Ice Island* is a high-definition film that documents a New England Aquarium expedition to make contact with this huge piece of ice. With numb limbs and chilled bones, the team goes where no one has gone before, diving deep under the ice, to find out what giant melting icebergs mean in the context of 21st Century global warming.”

“Part adventure story, part scientific quest, *Ice Island* takes you to one of the most alien places on earth, one that is as breathtakingly beautiful as it is treacherous.”

18) ***Keepers of the Reef*** – *A film shown as part of the New England Aquarium’s World of Water Film Series, filmed 1999. Dive into Bermuda’s alluring but sometimes deadly underwater world. Explore the mystery of coral reefs and the legacy left by shipwrecks. Discover the lost treasures and beauty concealed in the reef for centuries. Join host Peter Benchley and undersea explorer Teddy Tucker for a riveting adventure that uses Bermuda shipwreck as markers in our time to understand the colorful history, uncertain future and conservation of coral reefs worldwide. Main film 20 minutes. Also included: Underwater Portraits, a beautiful underwater video/audio montage of ocean life, 9 minutes. obtained by special request to: Bermuda Underwater Exploration Institute, Oceans Gift Shop, 40 Crow Lane, East Broadway, (Hamilton) Pembroke HM 19, Bermuda, Tel: 441-292-7219, E-mail: info@buei.org, web: <http://www.buei.bm/> May also be available by request from New England Aquarium Gift Shop manager. New England Aquarium Gift Shop, 617-973-5266, or email then at giftshop@neaq.org, or on the web at <http://www.neaq.org/> Not shown in catalogs or on web pages.*

“Coral reefs are resilient and until recently could recover on their own. See how coral reefs are being increasingly destroyed by our use of chemicals, over fishing, pollution, chemical pesticides and global warming. Understand how coral reefs develop, survive, and their importance in our world’s ecosystem. Learn how slowly coral grows and how fast it can be destroyed. We must all protect the world’s coral reefs. We are all keepers of our one and only earth.”

19) ***Ocean’s Mysteries, Fury In The Abyss*** – *An excellent Discovery TV Channel*

film. Approx 25 minutes long. - Learn how global ocean circulation has and could significantly and seriously affect climate. - The global ocean circulation (ocean conveyor belt) moves the warm equatorial surface water to the higher latitudes, to warm up areas such as northern Europe. The ocean circulation has given us stable air temperatures and climates for the last 10,000 years with average global air temperature variations of only about 2°F, but for the previous 250,000 years the variations were nearly 50°F. Global warming is causing melting glaciers and ice that is increasingly pushing ocean circulation (which is in a delicate balance) closer to where it could cease. If it does cease, which could occur just a few years once it starts, we could go into climates with large temperature variations and a much colder northern Europe. Stable atmosphere and climates are needed for human and species survival.

First aired March 19, 2001. Aired several times a year since. As of June 6, 2005, film not available to purchase from Discovery Channel, but according to their store could be in the future after a future showing, thus filmed off the air.

21) **Kilowatt Ours. A plan to re-energize America**, by Jeff Barrie. – *This excellent “film opens with Vice President Dick Cheney's energy policy speech in which Cheney makes the claim that America needs nearly 1900 new power plants in the next 20 years to meet projected electricity demands. From here, film maker Jeff Barrie takes viewers on a journey from the coal mines of West Virginia to the solar panel fields of Florida, as he discovers solutions to America's energy related problems. Along the way, Jeff and his wife Heather share a plan to eliminate their use of coal and nuclear power at home by employing energy conservation, energy efficiency and renewable energy sources. Through their learning experience, viewers discover how they can save hundreds of dollars annually on energy bills, and use a portion of the savings to purchase renewable energy.” You will also see the horrors of removing whole mountain tops to obtain coal from open pit mining and the resulting serious pollution. There are two versions of the film available on the same DVD: a 38 minute version and a 64 minute version. The longer version is more effective in getting the message across.*

<http://KilowattOurs.org> - Southern Energy Conservation Initiative,

P. O. Box 60322, Nashville, TN 37206 Email: info@kilowatthours.org

Make a donation to assist in their large scale education programs across USA and to cover cost of producing DVD. All donations entitle one to a copy of the DVD Kilowatt Ours and are tax deductible. Mail a check to payable to Kilowatt Ours, at the address above. Normally requires a donation of \$49.95, but special sale for \$29.95 is possible. Check web page for price and to purchase film under “Donation”.

“The dangers of coal-generated electricity include: Mountain top removal mining, air pollution, water pollution, haze in Great Smoky Mountains National Park, methylmercury contamination of newborns, childhood asthma and global warming. - The most significant cause of each of these problems is our dependence on coal-generated electricity in America. In other words, the solution begins at our light switches and power strips. - Today, more than 50% of our nation's electricity is generated from coal. In the southeast U.S., where household electricity use is highest, this amounts to more than 12,000 pounds of coal burned per home per year. - Buildings in America consume nearly 2/3 of all the energy we use. The typical American home emits twice the annual global warming emissions compared the typical car.”

Editors Note: Watch for a Faith-Based version of this film sometime in 2008.

22) **Global Warming, The Signs And The Science** – A top notch PBS “documentary film that explores what is arguably the most significant environmental phenomenon of the last 10,000 years. International recording artist Alanis Morissette hosts and narrates this cautionary look at the forces of climate change. Filmed in the United States, Asia and South America, this wide-ranging, compelling and accessible program brings the reality of climate change to life and offers viewers inspiring examples of people who are making a difference in their own communities.”

“The program features numerous science experts who review a growing body of evidence of the grave consequences of a changing climate, and explores how individuals, communities and organizations across America are creating new approaches to safeguard future generations. The documentary also looks at evidence that human activities are provoking an unprecedented era of atmospheric warming and climatic events: more drought, wildfires and flooding; polar melting; more powerful storms; and more variable weather. Tropical diseases are moving north; childhood respiratory illnesses are skyrocketing; and in the last three decades more than 30 diseases new to science have emerged.”

First shown November 2, 2005, with ‘footage’ taken just a few months before. One hour long. Excellent video and surround sound. An educational and very informative film, highly recommended, good for group showing and discussion, teenagers to adult. DVD approx. \$30 (also available on VHS) <http://www.pbs.org/> or specifically for the film DVD version (hyperlinked web address below is two lines long), <http://www.shoppbs.org/product/index.jsp?productId=2121561&cp&keywords=Global+Warming%2C+the+signs+and+the+science&y=7&searchId=5410598047&x=24&parentPage=search> PBS Item #GWSS601

A few things the film brought out are: It is believed the earth has not seen the rate of temperature rise and pollution in recent years as during the previous millions of years. While the average global temperature has increased over 1 degree F in 100 years, Alaska has increased in temperature by 4 degrees F and more in 50 years. Not only is snow and glaciers melting at the poles, but in the mid-latitudes it is melting at a rate where glaciers in Switzerland will be gone by 2050 (as they will in Glacier National Park). - By 2050 the China economy will be larger than USA, who now create around 25% or more of the world’s greenhouse gases. By 2030 China will import as much oil as USA. - An already overpopulated earth that is expected to be 9.3 billion persons by 2050, will be unsupportable on our globe and significantly contribute to our global warming and health problems. Inner city dwellers have a higher risk for health. Malaria, West Nile Virus, Meningitis, and Encephalitis are not only becoming worse in the tropics but are now occurring in the temperate regions of the earth. - Many areas in the globe that are on the dry side will become even drier, making them difficult or impossible to grow food. USA’s western heartland is drying up. Full scale experimental farms in the Midwest under carefully controlled conditions have been shown to absorb more carbon dioxide. The increase in nitrogen from using fossil fuels is reducing plant growth which means plants will not be able to absorb as much carbon dioxide. - In one school students were taught how to conserve energy in their every-day habits and “caught on” faster than adults. When the teachers left lights and computers on, the students would give the teachers a ticket. This made all more observant and the kids loved it. - First we must adapt to a new climate and how to live in it. Second we must reduce our greenhouse gas emissions. It is an economic benefit to do this, since solar and renewable energy employ 4 times more jobs than making fossil fuel.

23) **Dimming the Sun, What Does This Climate Conundrum Mean For The Future of Earth?** - *While global warming has been heating up the world, very recently scientists were stunned to discover that the sun has actually been growing dimmer, with less and less sunlight reaching earth’s surface. The amount of sun that reaches the earth’s surface has been found to be reduced by reflective particles in the atmosphere that collect water droplets around them; particles from things that include jet contrails, diesel engine smoke, and smoke from burning of coal to generate electricity. NOVA unravels this baffling climate detective story and follows the implications of the discovery for our planet’s future. As we clean up the particle pollution to reduce health and environmental problems, we will speed up global warming and climate change. These recent findings mean some computer forecasts of global warming need to be modified and will then show things will be occurring faster*

than previously thought. This NOVA PBS film was first shown March 28, 2006, with 'footage' taken just a few weeks before. Made in cooperation with Greenpeace. 56 minutes long. Excellent video and surround sound. An educational and very informative film, highly recommended, good for group (or individual) showing and discussion, grade level 7 and up.

DVD or VHS \$19.95. WGBH Item Numbers, for DVD #WG40809, for VHS #WG40803. Order on line <http://www.shop.wgbh.org/> or by email wgbh@ordering.com, or by phone 888-255-9231. Not available from PBS. May not be available for shipment until June 2006.

“Scientists have long known that increasing air pollution endangers our respiratory health. But they had not fully considered the impact of pollution on the amount of sunlight reaching Earth. Some scientists now believe that global dimming may disturb rainfall patterns and contribute to severe droughts and famines.

The good news is that, in some regions, pollution controls have slowed and possibly even halted global dimming during the last decade. The bad news – and the ironic twist in this story – is that without pollution, we will no longer have the cooling effect of global dimming. Instead, we may be confronted with the true poser of global warming, which we may have seriously underestimated due to the dimming sun.”

"Dimming the Sun" investigates the discovery that the sunlight reaching Earth has been growing dimmer, which may seem surprising given all the international concern over global warming. At first glance, less sunlight might hardly seem to matter when our planet is stewing in greenhouse gases. But the discovery of global dimming has led several scientists to revise their models of the climate and how fast it's changing. According to one recent and highly controversial model, the worst-case warming scenario could be worse than anyone has predicted. "Dimming the Sun" unravels this baffling climate conundrum and the implications for Earth's future.

To find out what global dimming means for the fate of the planet, NOVA reports on the findings of the world's top climate detectives, including an American scientist who found a grim but crucial opportunity immediately following September 11, 2001, when the entire U.S. airline fleet was grounded for three days. This presented a unique opportunity to study the effects of airplane vapor trails on the atmosphere (see [The Contrail Effect](#)). Comparing changes in the daily temperature range showed that the absence of dimming from aircraft pollution alone made a marked difference to the temperature. This result hints at how much the effects of atmospheric pollution had been underestimated.

Working in Israel, Dr. Gerald Stanhill was one of the first to discover the surprising fact that less solar energy is reaching the Earth's surface. While his measurements were met with skepticism, a review of worldwide data by Stanhill and a German researcher demonstrated that during the 1980s and early '90s, sunlight reaching Earth's surface had dropped just about everywhere. Halfway around the world, independent studies by Australian scientists confirmed this disturbing diagnosis. (For more, see [Discoveries in Global Dimming](#).)

Scientists have long known that increasing air pollution—the smog that clouds urban skies—endangers our respiratory health. But they had underestimated the impact of pollution on the amount of sunlight reaching Earth. Some scientists now believe that global dimming may also disturb rainfall patterns such as the Asian monsoon. If they are right, global dimming may be one of many factors that contributed to severe droughts and famines in Africa during the 1980s.

The good news is that pollution controls have slowed and possibly even halted global dimming during the last decade. The bad news—and the ironic twist in NOVA's story—is that without pollution, more sunlight is reaching Earth, revealing the full impact of global warming. Although all climate models have important uncertainties, the unsettling implication is that, with dimming fading away in many regions, global temperatures may rise even faster than most models have predicted. “

24) **“An Inconvenient Truth, Global Warning”** - Starring: *Al Gore* and Director: *Davis Guggenheim*. A 96 minute DVD documentary film on Al Gore's campaign to make the issue of global warming a recognized problem worldwide. Available from Amazon for \$30 plus shipping (check for discount). See http://www.amazon.com/Inconvenient-Truth-Inconvenient/dp/B000ICL3KG/sr=1-3/qid=1158270805/ref=sr_1_3/102-4383335-8949754?ie=UTF8&s=dvd, or the film home web page, <http://www.climatecrisis.net/blog/>. This top notch excellent DVD was released to the public on November 21, 2006. Considered by many as the best documentary yet made on climate change aka global warming. Color, Widescreen, NTSC (Aspect Ratio: 1.78:1) and Dolby Digital 5.1 surround sound. (See Al Gore's accompanying book: *An Inconvenient Truth: The Planetary Emergency of Global Warming and What We Can Do About It* (Paperback))

Director Davis Guggenheim eloquently weaves the science of global warming with Mr. Gore's personal history and lifelong commitment to reversing the effects of global climate change. A longtime advocate for the environment, Gore presents a wide array of facts and information in a thoughtful and compelling way. "Al Gore strips his presentations of politics, laying out the facts for the audience to draw their own conclusions in a charming, funny and engaging style, and by the end has everyone on the edge of their seats, gripped by his haunting message," said Guggenheim. An Inconvenient Truth is not a story of despair but rather a rallying cry to protect the one earth we all share. "It is now clear that we face a deepening global climate crisis that requires us to act boldly, quickly, and wisely," said Gore. - At the end of the film is a long printed list of what persons can do (actions), which some have all too quickly thought it to be credits and left the theater too soon.

With the fate of our planet arguably hanging in the balance, *An Inconvenient Truth* may prove to be one of the most important and prescient documentaries of all time. As he jokingly refers to himself, "former President-elect" Al Gore felt an urgent personal calling to draw attention--as he had been doing throughout his political career--to the increasingly desperate crisis of global warming, and this riveting documentary is basically a filmed version (by respected TV director Davis Guggenheim) of the PowerPoint lecture that Gore has presented (by his own estimate, well over 1,000 times) to attentive audiences all over the world. Considering Gore's amiable, low-key approach to charts, graphs, statistics, and photographs that leave no room for doubt regarding the *reality* (not "theory") of global warming as Earth's ultimate environmental crisis, many viewers will be surprised by just how fascinating and convincing this no-frills film really is.

As we learn about the milestone events that shaped his character (including his sister's death and young son's near-fatal injuries after being struck by a car), Gore sheds the stiff demeanor of his 2000 presidential campaign and impresses us as a man with a mission, transcending partisan politics with an impassioned plea for common sense, ethical forthrightness, and passionate purpose in reversing the harmful effects of global warming through personal and political responsibility. Some may accuse Gore of exploiting global warming as a Democratic platform, but his honest conviction regarding this "inconvenient truth" (i.e. overwhelming evidence of global warming that's troublesome to those whose interests are threatened by Gore's irrefutable message) is likely to silence all but the most obtusely stubborn detractors. By taking the high road and discreetly avoiding a full-on assault against the George W. Bush administration (which has steadfastly avoided "the inconvenient truth" with obfuscating spin control and policies favoring the oil industry), Gore effectively rises above political differences with a stern but hopeful eye toward a better future for our children.--*Jeff Shannon*

25) **“Who Killed the Electric Car?”** (2006) Martin Sheen Actor. An excellent 91 minute documentary film that investigates the birth and death of the electric car, as well as the role of renewable energy and sustainable living in the future. In 1996, electric cars began to appear on roads all over California. They were quiet and fast, produced no exhaust and ran without gasoline. Ten years later, these futuristic cars were almost entirely gone. What happened? Why should we be haunted by the ghost of the electric car? Available from Amazon for \$27 plus shipping (check for discount), see <http://www.amazon.com>. Color, Widescreen, NTSC (Aspect Ratio: 1.78:1) and Dolby Digital 5.1 surround sound.

With gasoline prices approaching \$4/gallon, fossil fuel shortages, unrest in oil producing regions around the globe and mainstream consumer adoption and adoption of the hybrid electric car (more than 140,000 Prius' sold this year [in 2006 by around 8/2006]), this story couldn't be more relevant or important. The foremost goal in making this movie is to educate and enlighten audiences with the story of this car, its place in history and in the larger story of our car culture and how it enables our continuing addiction to foreign oil. This is an important film with an important message that not only calls to task the officials who squelched the Zero Emission Vehicle mandate, but all of the other accomplices, government, the car companies, Big Oil, even Eco-darling Hydrogen as well as consumers, who turned their backs on the car and embrace embracing instead the SUV. Our documentary investigates the death and resurrection of the electric car, as well as the role of renewable energy and sustainable living in our country's future; issues which affect everyone from progressive liberals to the neo-conservative right.

Who Killed the Electric Car? begins with a solemn funeral...for a car. By the end of Chris Paine's lively and informative documentary, the idea doesn't seem quite so strange. As narrator Martin Sheen notes, "They were quiet and fast, produced no exhaust and ran without gasoline." Paine proceeds to show how this unique vehicle came into being and why General Motors ended up reclaiming its once-prized creation less than a decade later. He begins 100 years ago with the original electric car. By the 1920s, the internal-combustion engine had rendered it obsolete. By the 1980s, however, car companies started exploring alternative energy sources, like solar power. This, in turn, led to the late, great battery-powered EV1. Throughout, Paine deftly translates hard science and complex politics, such as California's Zero-Emission Vehicle Mandate, into layperson's terms (director Alex Gibney, Oscar-nominated for *Enron: The Smartest Guys in the Room*, served as consulting producer). And everyone gets the chance to have their say: engineers, politicians, protesters, and petroleum spokespeople--even celebrity drivers, like Peter Horton, Alexandra Paul, and a wild man beard-sporting Mel Gibson. But the most persuasive participant is former Saturn employee Chelsea Sexton. Promoting the benefits of the EV1 was more than a job to her, and she continues to lobby for more environmentally friendly options. Sexton provides the small ray of hope Paine's film so desperately needs. *Who Killed the Electric Car?* is, otherwise, a tremendously sobering experience. --Kathleen C. Fennessy

26) THE GREAT WARMING... it's more than just the heat

Narrated by Alanis Morissette and Keanu Reeves, "The Great Warming" is a dramatic film about climate change that sweeps around the world to reveal how a changing climate is affecting the lives of people everywhere. It has been called "the best film about global warming ever shot", and taps into the growing groundswell of public concern to present an emotional and accurate picture of our children's planet.

The Great Warming includes candid comments from scientists and opinion-makers about America's lack of leadership in what is certainly the most critical environmental issue of the 21st century, as well as documenting the emerging voice of America's diverse faith communities urging action on climate change. www.thegreatwarming.com for more on film, ordering information, and discussion resources.

Editors Note: "The Great Warming" has been endorsed by UUMFE.



Change a Light

Change the World

Though we call them light bulbs, traditional incandescent bulbs are actually small heaters that give off a little bit of light. These bulbs were technological wonders when they were patented in 1880, but today they are inefficient dinosaurs. They waste energy and money, and are responsible for millions of tons of global warming pollution.

Fortunately, the next generation of bulbs is here: Compact fluorescent light bulbs (CFLs) now give off high-quality light using a fraction of the electricity. They fit right into the lamp socket just like the old bulbs. Using CFLs puts less strain on the electric grid and saves you money. If every household replaced just three 60-watt incandescent light bulbs with CFLs, we would reduce as much pollution as if we took 3.5 million cars off the roads!

To get the most energy savings, replace bulbs where lights are on most, at least 4 hours per day, such as the family or living room, kitchen, dining room and porch. Be sure the bulbs are in open fixtures that allow air flow.

Check out the chart below for a detailed estimate of how much carbon pollution you can prevent based on the bulbs you switch out and how much money you will save.

<u>Incandescent</u>	<u>CFL</u>	<u>Lumens</u>	<u>Cost Savings</u>	<u>CO₂ Savings</u>
60 Watts	14-19 Watts	900	\$62 - \$68	806 - 884 lbs.
100 Watts	26-29 Watts	1750	\$107 - \$112	1,391-1,456 lbs

Please join us in pledging to switch 3 regular light bulbs to compact fluorescents. Thank you.

How to Pick the Right CFL

Compact fluorescent lightbulbs (CFLs) save you money by using only one quarter the electricity of a standard incandescent bulb, and they last 7 to 10 times as long.

Light Output

Light output is measured in lumens. If your 60-watt bulb says it produces 890 lumens, look for a CFL with similar output.

Standard Incandescent (Watts)	CFL Replacement Range (watts)	Approximate Lumens
60	15	890
75	19	1220
100	30	1650

Size

Most CFLs will fit into existing fixtures. If you are purchasing a bulb for a specialized application like recessed cans make sure you know the size of the can to insure the bulb will fit.

Shape

CFLs come in many different shapes and sizes and will fit almost any application including flood lamps, vanity globes, ceiling lights, candelabras, and three-way lamps.

Color

Color is determined by Kelvin temperature. To replicate an incandescent purchase a CFL with a Kelvin temperature of 2700 or one labeled “warm white”.

Look for the Energy Star Label

The Energy Star Label will assure you that the bulb you purchase is high quality and energy efficient.

Recycling

All CFLs contain a small quantity of mercury and most municipal and/or state laws require that they be recycled properly.



How to Hold a Compact Fluorescent Bulb Sale

One of the most popular Congregational Actions to address Global Warming has been the promotion and sale of compact fluorescent bulbs or CFLs. The options and resources are too numerous to detail in this kit. But as good starting points we suggest the following ideas:

1. Contact your utility. Many utility companies offer rebates or even have catalogues with bulbs at very low prices.
2. See if your state has an Interfaith Power and Light and what resources they have.
3. Many folks have found that Home Depot, Costco, and other large chain stores have unbeatable prices, and you can buy in bulk. Some congregations round up the prices to the nearest dollar to support their Green Sanctuary work.
4. Other congregations have worked with local hardware stores, which have gladly ordered bulbs in bulk quantities and given substantial discounts.
5. Otherwise, some sources of bulbs mentioned on the Green Sanctuary List serv include (no endorsement intended):
 - a. www.bulbs.com
 - b. www.1000bulbs.com
 - c. <http://www.amerasiaenterprises.com/nightlight.htm> (for LEDs)

To learn more about other congregation's experiences selling CFLs and LEDs, join the UUMFE Green Sanctuary Discussion List Serv or the UUMFE Global Warming List Serv: <http://lists.uua.org/mailman/listinfo/greensanctuary> or <http://lists.uua.org/mailman/listinfo/globalwarming>

CFLs & MERCURY

Why CFLs?

If every household in America installed just one compact fluorescent light bulb, it would save enough energy to light more than 3 million homes and reduce greenhouse gas emissions equivalent that produced by 800,000 cars. Installing CFLs is perhaps the most accessible change that every American can make right now to reduce CO₂ in the atmosphere. CFLs contain a very small amount of mercury, and it is important to weigh this against the fact their use helps to reduce emissions from coal-fired power plants, which produce roughly 40 percent of the mercury emissions in the U.S. At the same time it is important that we educate others and ourselves about proper disposal of CFLs.

How much mercury do CFLs contain?

A bulb has an average of 5 milligrams or the amount that would cover the tip of a ballpoint pen. Older thermometers contained about 500 milligrams. Manufacturers are working to reduce the mercury, which is currently an essential component of CFLs. The amount is lessening each year.

How do I dispose of used, unbroken CFLs?

The EPA recommends that you take advantage of local recycling options where available. The EPA is working with CFL manufacturers and retailers to expand disposal options, and many major U.S. retailers now offer recycling options. Go to www.lamprecycle.org and click on “State Lamp Recycling Regulations and Contacts” to identify local options. If your state permits you to put used or broken CFLs in the garbage, seal the CFL in two plastic bags and put into the outside trash. CFLs should not be disposed of in an incinerator.

What do I do if a CFL breaks?

If a CFL does break the EPA recommends the following:

1. Open a window and leave the room for at least 15 minutes
2. Remove all materials you can without using a vacuum clean.
 - Wear disposable gloves,
 - Carefully scoop up the pieces and powder with stiff paper or cardboard
 - Wipe the area clean with a damp paper towel or wet wipe
 - Or use sticky tape to pick up fragments and powder
3. Place all cleaning materials in two plastic bags. seal them, and dispose of them according to the guideline allowed by your city or state. Check with your local trash disposal service, your municipal government, or the appropriate State office.
4. The first time you vacuum the area, remove the vacuum bag once done (or empty and wipe the canister) and dispose of the bag or debris in two sealed plastic bags in an outdoor trash receptacle until you next dispose of your trash.

To learn more about compact fluorescent bulbs visit:
http://www.energystar.gov/index.cfm?c=cfls.pr_cfls

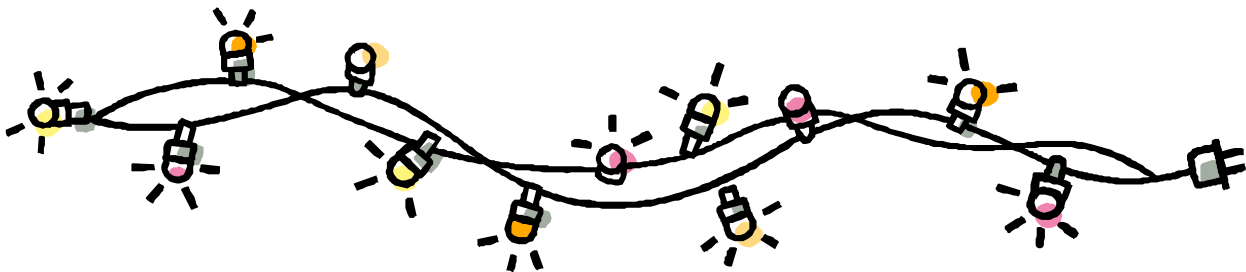
HAVE YOURSELF A SUSTAINABLE HOLIDAY WITH LED LIGHTS



CHRISTMAS PAST: 5-WATT BULBS



**CHRISTMAS PRESENT: MINI-LIGHTS, 25 WATTS PER
50-LIGHT STRING, 3000-HOUR LIFE SPAN**



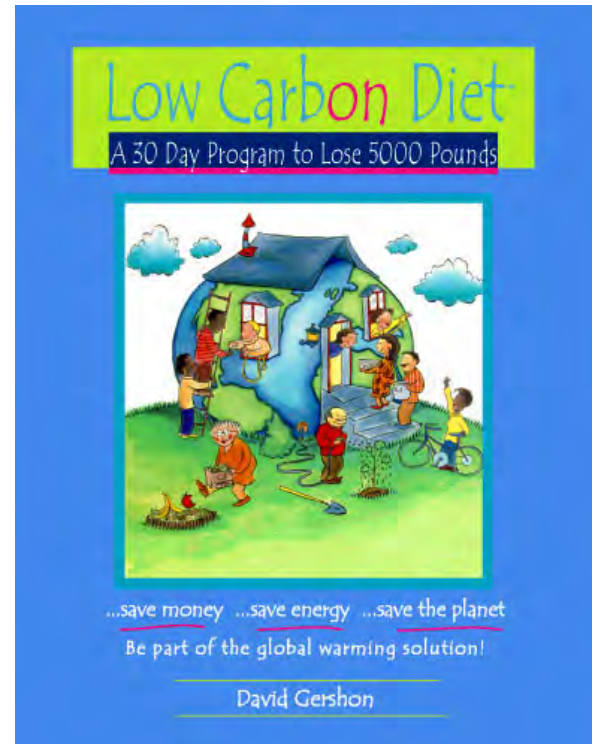
**CHRISTMAS FUTURE: LED LIGHTS, 0.05 WATTS PER
LIGHT, 200,000-HOUR LIFE SPAN!
\$12/35 LIGHTS (MULTICOLORED),
\$16/70 LIGHTS (CLEAR)**

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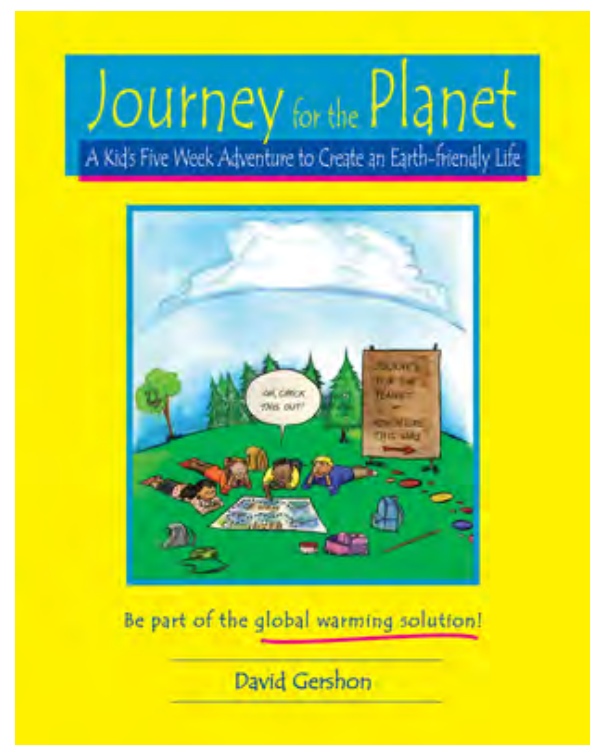
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A New Partnership



UU Ministry for Earth is partnering with the *Low Carbon Diet* Initiative which centers around the *Low Carbon Diet* workbook—a fun, illustrated CO₂-reduction handbook that guides you through a series of 22 action steps to trim your carbon footprint and help others do the same. This program is a fun, accessible, and has an easy to use guide that will show you, step-by-step, how to dramatically reduce your CO₂ output in just a month's time.

Grounded in over two decades of environmental behavior change research, this illustrated workbook offers much more than a list of eco-friendly actions. It walks you through every step of the process, from calculating your current CO₂ "footprint" to tracking your progress. By making simple changes to actions you take every day, you'll learn how to reduce your annual household CO₂ output by at least 15%. And, for those who are more ambitious, you'll discover how you can become "carbon neutral" and help your congregation, workplace, local schools, and community do the same.

Dieters will learn how to:

- Calculate their CO₂ footprint
- Create "cool household systems" that save the Earth while saving you money
- Take on "cool lifestyle practices" that reduce CO₂ emissions
- Purchase carbon offsets to become "carbon neutral" (*Remember UUMFE's other partnership with CarbonFund.org described in Vol. 1 of the Global Warming Action Kit*)
- Form a *Low Carbon Diet* "EcoTeam" with members of your faith community

To give you a taste, Low Carbon Diet has allowed us to reprint two action step chapters in this Kit. See "Scrub-A-Dub Tub" and "Drive Earth Smart" in the LCD Sampler folder.

The *Low Carbon Diet* is a great fit for use in UU congregations because it is designed to be done in a group, building supportive community while addressing climate change. To begin, congregations can host a "Global Warming Café" workshop to introduce this easy-to-follow carbon reduction program. Then, those who are interested can divide up into small "EcoTeams" to support one another in following through on their *Low Carbon Diet* commitment – rather like Weight Watchers for the Planet! Meeting guides are contained in the book.

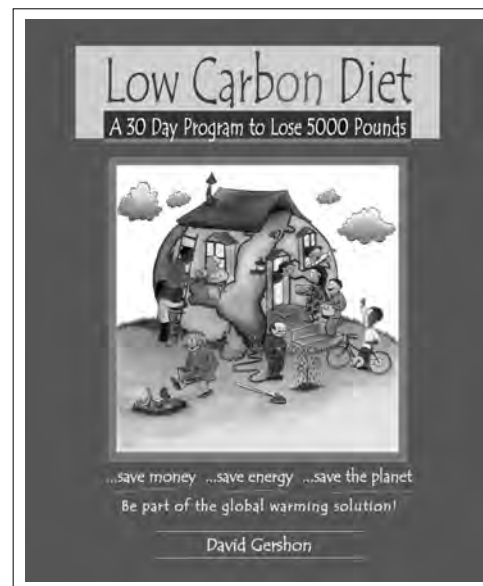
In addition, if you want to get your children or grandchildren involved, there is a children's version of the program called *Journey for the Planet*. To learn more and see a sample chapter from that book, please see the Journey for the Planet folder in this Kit.

With our new partnership, UUMFE will receive a donation of \$3 for each copy of the workbook purchased. To find out more or order a copy of the book, go to www.uuministryforearth.org and click on *Resources and Publications*, then scroll down to *Low Carbon Diet*; or use the forms in this kit to order copies of either book now.



"This book is fabulous! It couldn't be more timely. It's practical, accessible and effective. Getting people to take on global warming at a personal level is critical to tackling the issue. The Low Carbon Diet can make a huge difference."

– Denis Hayes, Co-founder, Earth Day,
President and CEO, Bullitt Foundation



Become part of the global warming solution. Go on a Low Carbon Diet!

This "30 Day Program to Lose 5000 Pounds" is a fun, accessible, easy to use guide that will show you, step-by-step, how to dramatically reduce your CO₂ output in just a month's time.

Grounded in over two decades of environmental behavior change research, this illustrated workbook offers much more than a list of eco-friendly actions. It walks you through every step of the process, from calculating your current CO₂ "footprint" to tracking your progress.

By making simple changes to actions you take every day, you'll learn how to reduce your annual household CO₂ output by at least 15%. And, for those who are more ambitious, you'll discover how you can become "carbon neutral" and help your workplace, local schools, and community do the same.

You'll learn how to:

- Calculate your CO₂ footprint with our easy-to-use "carbon calculator"
- Create "cool household systems" that save the Earth while saving you money
- Take on "cool lifestyle practices" that reduce CO₂ emissions without cramping your style
- Purchase carbon offsets to become "carbon neutral"
- Form a Low Carbon Diet "EcoTeam" with friends, colleagues, co-workers or your faith community

Join the growing number of Americans who have decided to take global warming into their own hands.



LOW CARBON DIET WORKBOOK MAIL-IN ORDER FORM

For every book you order, \$3 will be donated to Unitarian Universalist Ministry for Earth

name _____
phone _____
address _____
city _____ state _____ zip _____
e-mail _____

Checks should be made out to Empowerment Institute.

Mail this form along with your check to:

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Please use our secure web shopping cart for credit card orders:

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Shipping and Handling Table

\$0 - \$35.00 = \$5.10	\$150.00 - \$199.99 = \$25.00
\$35.01 - \$70.00 = \$10.00	\$200.00 - \$249.99 = \$35.00
\$70.01 - \$99.99 = \$15.00	\$250.00 - \$299.99 = \$45.00
\$100.00 - \$149.99 = \$19.00	\$300.00 and over please call



INTRODUCTION

Global warming is changing our world. Severe hurricanes, tornadoes, heat waves, and flooding are becoming commonplace. The consequences, including loss of life, economic disruption, and population dislocation are growing each year. As individuals living on the planet at this moment in time, we face a challenge no generation has ever had to face. We need to dramatically change the manner in which we use the Earth's natural resources. And we need to do this soon or we will significantly increase the severity of climate-induced natural disasters.

The primary cause of global warming is carbon dioxide emitted into the atmosphere through the burning of fossil fuels — gasoline, coal, oil, and natural gas — which we use to power our cars and homes and to produce the goods we consume. The typical American household generates 55,000 pounds of carbon dioxide annually. Taken collectively, US households directly produce about 8% of the planet's carbon dioxide emissions, and through our purchases we are indirectly responsible for another 17%. By contrast, the typical German household contributes 27,000 pounds and the average Swedish household's contribution is only 15,000 pounds. Clearly, we have much room for improvement.

If the bad news is that individual Americans are a major part of the problem, the good news is that we can also be a major part of the solution. By making specific, targeted changes to actions we already take every day, we can significantly reduce our CO₂ emissions.

If you're among those who understand the seriousness of our plight, you probably feel called to do something about it. And like a lot of us, you're now asking: Where do I begin? Which are the important actions to take? How do I take them? And if I do take them, will it really make a difference given the magnitude of the problem?

This book answers those questions. It will show you how, in just a single month, you can make enough simple adjustments to your lifestyle to reduce your annual CO₂ output by at least 5,000 pounds. And how, if you're interested, you can even reduce your CO₂ footprint to zero.

The program described in this book is based on a tried and true methodology grounded in extensive research. Over the past two decades, I have developed environmental behavior change programs that have helped several hundred thousand people demonstrably lessen their toll on the planet. American households using this simple methodology have reduced their environmental footprint by over 25% *and* sustained these changes over time.

Participants in these programs represent a cross-section of political and religious ideologies. They range from people who view themselves as environmentalists to those who just think it makes good sense to use resources more efficiently. What they all have in common is that they need help translating their good intentions into action.

An encouraging pattern emerged when I began working with social networks, faith communities, neighborhoods, civic groups, and workplaces. I observed that once the initial group of people took up the program, it would often achieve a tipping point and, through word-of-mouth, rapidly spread throughout that community. It often reached as many as 85% of the people in a particular sub-culture. Because most people want to do the right thing for the environment, there was no inherent resistance to participation. Once I discovered this desire among participants to share the program with others, I furthered the process along by providing simple tools for spreading it.





I believe that the issue of global warming is extraordinarily primed for this type of grassroots empowerment process. The daily effects of climate change combined with the continually rising costs of energy have gotten everyone's attention. People want to move out of helplessness and fear. They want to take matters into their own hands and become part of the solution.

When I asked participants in my environmental programs why they took time out of their busy lives to make these changes, the most common response was "to create a better future for my children and future generations." This aspiration is even more relevant for the issue of global warming.

If we ordinary Americans reduce our carbon dioxide footprint, we can have a disproportionate influence in turning the tide on global warming. When we, the consumers and voters, become part of the global warming solution, businesses and politicians will not be far behind. As the saying goes, when the people lead, the leaders will follow. And as America—the planet's greatest contributor to climate change—takes responsibility for reducing its carbon footprint, the impact will inevitably ripple out.

An extraordinary moment for change has arrived. Feedback from the Earth is telling us it is time to act. Al Gore's profound movie "An Inconvenient Truth" has created a groundswell of interest among ordinary citizens who want to do their part. The stars are in perfect alignment for change. This is a heroic time calling for heroic action.

You can lead the way and this book will show you how. It builds on my two decades of learning and a highly successful pilot of this program where participants achieved a 22% (6,700 pound) annual CO₂ reduction. The actions in this book are easy to take and are accompanied by lighthearted illustrations that make it fun. Each has a CO₂ reduction value so you can set and achieve your reduction goal. The program can be done as an individual household or as a small group of friends, neighbors, or co-workers—what I call an EcoTeam. Experience has shown that doing it as a team can provide extra motivation to follow through. But either approach works.

The program is divided into three sections. First, you work on adopting climate-friendly lifestyle practices. You learn how to change habit patterns established over the course of your life that you rarely think about but that are easy to change once you know how to do it. Then you move to your household systems. These are the mechanical parts of your life. Taking action here will have a long-term impact and will not require much thinking about it again. Once you have reduced your own CO₂ footprint, the last section shows you how to help others do the same. You learn how to invite people in your social network, workplace, community, or children's school to become part of the global warming solution.

I am in awe of the potential for this moment to be truly catalytic. I know we can make the needed changes happen, and I am hopeful this book can play a significant role. I wish you well in this journey and thank you for doing your part. Godspeed . . .





HOW THE PROGRAM WORKS

1. Select from the menu of actions in this workbook those that help you reduce your carbon dioxide (CO₂) emissions by a minimum of 5,000 pounds.
2. You can do the program either with your household family members or as part of a peer support group of friends, neighbors, co-workers, or members of your faith community or civic organization—an EcoTeam. A good size for an EcoTeam is 5 to 8 households.
3. In either format, the program is designed to be completed in 4 meetings that take place every 10 to 14 days. A team initiator runs the meetings using scripts located in the support section of this workbook. Meetings last 1.5 to 2 hours, with several hours needed between meetings to take the actions selected. If you do the program as an individual household and live with others, turn your household members into a team and adapt the meeting scripts accordingly. If you live alone and choose to do this on your own, use the program's suggested time sequence as a structure to keep you motivated.
4. In the team program, the first meeting—the Team Building Meeting—is used to create your support system, learn how to calculate your CO₂ footprint, (www.empowermentinstitute.net/lcd) and create an action plan to reduce it (pages 47–50). During meetings 2 to 4, team participants report on actions taken and describe their action plans for the next section. The team provides support and inspiration for everyone to carry out their plans.
5. Each program action in this workbook indicates the pounds of CO₂ your household can save. Whatever your emissions are at the start of the program, you are encouraged to select actions to help you achieve a 5,000 pound reduction or greater. If you have already taken many CO₂ reduction actions, you will start at a higher level of achievement. The typical American household is Level 4.

	Annual Household CO ₂ Emissions (pounds)
Level 1	80,000 and above
Level 2	70,000 - 79,999
Level 3	60,000 - 69,999
Level 4	50,000 - 59,999
Level 5	40,000 - 49,999
Level 6	30,000 - 39,999
Level 7	20,000 - 29,999
Level 8	10,000 - 19,999
Level 9	1,000 – 9,999
Level 10	Carbon Neutral (less than 1000)

That's it! Enjoy making your contribution to the quality of life of future generations.

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8. DRIVE EARTH SMART

Fuel Efficient Driving

WHY ACT?

Did you know that you can save 10–30% of your fuel costs and the CO₂ that represents by driving smart? This action will not only save you money and the planet CO₂; it will also make you a safer driver. Here's how to drive smart.

CO₂ REDUCTION ACTION

- Before you even pull out of the driveway:
 - If your household has more than one vehicle, drive the more fuel-efficient model when you have a choice.
 - Plan your route, including commutes to work. The best route may not be the shortest, but the one that prevents idling in traffic. In city driving, up to one-third of your fuel can be wasted through idling.
 - Rid your car of any unnecessary weight. You lose 1% fuel efficiency for every extra 100 pounds.
- When driving on the highway:
 - Maintain a steady speed, using your cruise control device if you have one. For most vehicles, 55 is the most fuel efficient highway speed and will save you up to 20–30% in fuel costs compared to driving at 75 mph. It's also safer.
- When driving on secondary roads:
 - Anticipate stops and slowdowns, decelerating steadily to save gas.
 - When appropriate, drive between 45 and 55 mph, the most fuel efficient range.
 - Turn your engine off when you stop for a minute or two, such as at railroad crossings. It's a myth that it's more fuel-efficient to leave your engine running for a few minutes than to turn it off and restart it.

TIME AND MATERIALS

- No time at all and a light foot on the pedal.

GOAL

Develop Earth-Smart driving practices.

CO₂ CREDIT

Note: Check the box as you take the action.

- ☐ For implementing these fuel efficient driving practices, credit your household for saving 55 gallons of gasoline per year, which represents 1,200 pounds of annual CO₂ reduction per auto.



3. SCRUB-A-DUB TUB

Reducing Water Used for Washing Dishes

WHY ACT?

Each time you run your dishwasher, you produce approximately two pounds of CO₂. Hand-washing dishes inefficiently can use up to 15 gallons of hot water or almost 3 pounds of CO₂ per dish-washing. Through greater dishwashing efficiency you can reduce your CO₂ footprint in this area by 25% or more.

CO₂ REDUCTION ACTION

- Dishwasher: Run only when you have a full load. Scrape off food, but don't rinse dishes before loading. Use the energy-saving setting to dry dishes ("air dry" rather than "heat dry").
- Hand-washing: Wash dishes in a tub of hot soapy water. Fill a second tub for rinsing dishes.
- Make sure your kitchen faucet has an aerator. Aerators reduce water flow by about 25% and produce a water stream that is every bit as good for washing dishes, hands, or fruits and vegetables.

Note: When it's time to replace your dishwasher, buy Energy Star®. Information about Energy Star® dishwashers can be found at www.energystar.gov

TIME & MATERIALS

- You will save time through greater efficiency in your dishwashing.
- Sink, tub, dishwasher, biodegradable dishwashing soap.

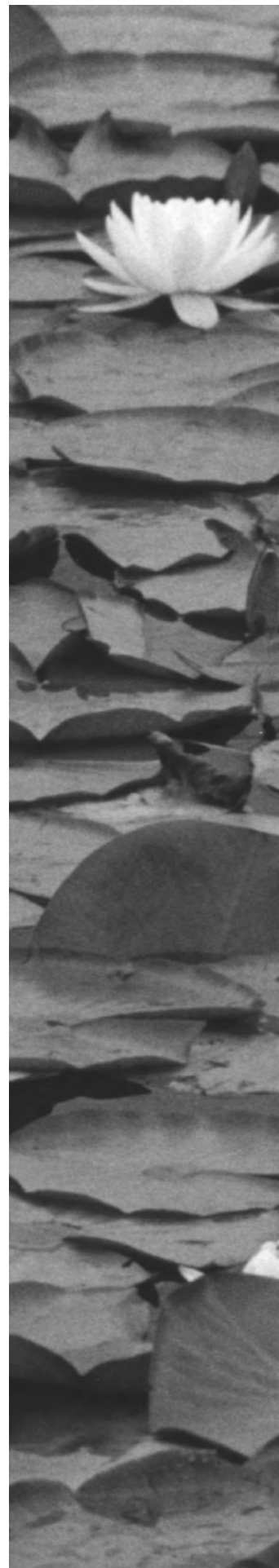
GOAL

If you use a dishwasher, reduce dishwasher use by one load per week, and avoid using the "heat dry" setting to dry your dishes. For hand-washing, always wash dishes in one basin and rinse in a second basin.

CO₂ CREDIT

Note: Check the box as you take each action.

- ☐ For reducing dishwasher use by one load per week, credit yourself 175 pounds of avoided CO₂ per year.
- ☐ For minimizing hot water use in hand dishwashing, credit yourself with 125 pounds of avoided CO₂ emissions annually.
- ☐ Bonus: If you have an Energy Star® dishwasher or plan to buy one within a year, credit yourself an additional 100 pounds of annual CO₂ savings.





A World Café Hosting Guide

The World Café invites people to participate in a collaborative conversation to co-evolve the futures they want rather than settle for the futures they get. It's based on something we all know how to do—*engage in a good conversation*—and assumes that people already have within them the wisdom and creativity to effectively address their most important challenges and opportunities.

The World Café Process

In a World Café, four people sit at a café-style table or in a small conversation cluster to explore a question or issue that matters to their community or organization. Other participants seated at nearby tables or in conversation clusters explore similar questions at the same time. As they talk, participants are encouraged to write down key ideas on large cards or to sketch them out on paper tablecloths that are there for that purpose.

After an initial round of conversation in these small groups, lasting perhaps 20 to 30 minutes, participants are invited to change tables. When participants travel, they carry key ideas and insights from their previous conversation into the newly formed group. In addition, one “table host” stays at each table to share with new arrivals the key images, insights, and questions that emerged from the prior dialogue at that table.

This process is repeated for two or three rounds and is followed by all participants participating in a whole-group conversation and contributing to a gathering or “harvesting” of the actionable ideas and recommendations that have emerged.

World Café Etiquette

A few simple practices enable participants to support each other in speaking and listening authentically—and in being more aware of how every participant contributes to a collective whole. It's very helpful to post and share these with the group at the beginning of your World Café.

- Focus on what matters.
- Contribute your thinking.
- Speak your mind and heart.
- Listen to understand.
- Link and connect ideas.
- Listen together for insights and deeper questions.
- Write, doodle, and draw on the tablecloths.
- Have fun!

A World Café Hosting Guide

Principles of World Café Design

The World Café process reflects the way living systems co-evolve. Its core principles can help people in a wide range of settings develop their capacity to work together in shaping their common futures.

- **Set the context:** Clarify the purpose and parameters within which the dialogue will take place.
- **Create hospitable space:** Design a welcoming environment that is physically appealing and that assures personal comfort, safety and mutual respect.
- **Explore questions that matter:** Focus collective attention on powerful questions that will benefit from collaborative engagement.
- **Encourage everyone's contribution:** Enliven the relationship between the “me” and the “we” by inviting full participation and by fostering deep listening and speaking.
- **Cross-pollinate and connect diverse perspectives:** Enable the emergence of new insights by designing conversations that foster multiple points of view while keeping the focus on core questions.
- **Listen together for patterns, insights, and deeper questions:** Guide the conversation in ways that will reveal deeper patterns and common perspectives without losing the uniqueness of individual contributions.
- **Harvest and share collective discoveries:** Make the collective knowledge and insight that emerges both visible and actionable.



What Specifically Does the World Café Host Do?

The task of the World Café host is to put the World Café design principles into action, with thoughtfulness, artistry, and care. A good host can make the difference between participants simply having an interesting conversation and their experiencing true breakthrough thinking. He or she will:

In welcoming participants and setting the context

- Work with others to create a comfortable World Café environment (see the notes below).
- Help welcome participants as they enter.

A World Café Hosting Guide

- Explain the World Café process and describe the World Café etiquette.
- Help the group focus on issues that genuinely matter to them by posing the question participants will explore during each round of conversation.
- Let people know how long each round will be and invite them to view the “interruption” in their conversation – and the invitation to continue with new partners – as vital to the weaving of collective intelligence.
- Encourage everyone to participate—to write, doodle and draw key ideas on their tablecloths—or to note key ideas on large index cards or placemats in the center of the group.

During each round of conversation

- Move among the tables and help participants as needed.
- Continue to embody the spirit of hosting, “holding the space” for good conversation.



When moving from one round to another

- Let people know in a gentle way when it's time to move and begin a new round of conversation. Remind them that although they may be interrupting their talk for the moment, the conversation will continue at a new table.
- Upon completing the initial round of conversation, ask one person to remain at the table as the “table host” while the others serve as travelers or “ambassadors of meaning.” The travelers carry key ideas, themes and questions into their new conversations. (It is often best not to assign or ask for table hosts at the beginning of the round. In this way each person feels equally responsible and no one is “in charge” of recording ideas.)
- Ask the table host to welcome the new guests and briefly share the main ideas, themes, and questions of the initial conversation. Encourage guests to link and connect ideas coming from their previous table conversations – listening carefully and building on each other's contributions.

During large group harvesting sessions

- Invite participants to share discoveries and insights to help the group discern patterns, develop collective knowledge, and identify new possibilities for action.
- Engage participants in “listening for what is emerging” and note how each perspective contributes to a larger understanding than any single view reveals.

A World Café Hosting Guide

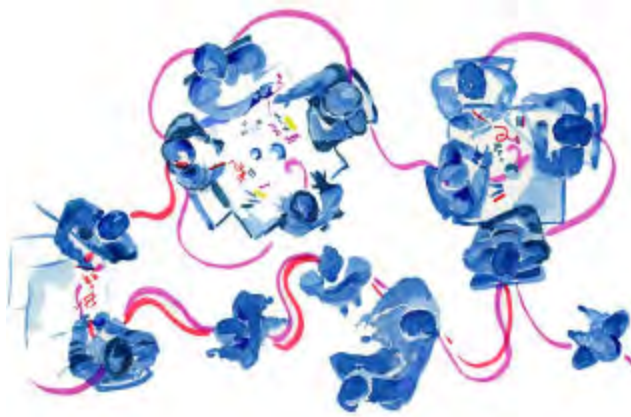
- Throughout, practice the art of hosting, which involves invitation, welcoming, offering, and honoring participants and their contributions.
- Be creative in adapting the design principles of the World Café to meet the unique needs of your situation!

Tips for Creating World Café Ambience

Be creative in setting up your World Café to foster a sense of informality and intimacy. When participants arrive they should know that this is no ordinary meeting. Creating hospitable space involves attending to the layout and design of the physical environment and relating to participants in ways that are welcoming, inviting, and appreciative.

- If possible, select a space with natural light and an outdoor view.
- Work to make the space look like an actual café, with small tables that seat four or five people. Less than four at a table may not provide enough diversity of perspectives, while more than five limits the amount of personal interaction.

Small round tables of 36-42 inches are ideal. If small round tables are not available, be sure your table setup allows participants to cluster in groups of four easily.



- Arrange the café tables in a staggered, random fashion—as they might be in an actual café—rather than in neat rows.
- Use colorful tablecloths and place a small, attractive centerpiece on each table. Use your imagination to select a centerpiece that is meaningful.
- Place at least two large sheets of paper (for example, from a flip chart) over each tablecloth along with a mug or other container filled with colorful, water-based markers. (For legibility, use dark colors such as green, black, blue, and purple; include one or two bright colors for adding emphasis to table graphics.) Paper and pens encourage drawing, note-taking, and the interconnection of ideas.
- Put one table near the podium as a base for the World Café host and event sponsor to use.
- Arrange wall graphics, banners, and other displays in attractive ways (including the World Café etiquette). If possible, place plants or greenery around the room.

A World Café Hosting Guide

- Have music playing as people arrive and are being welcomed.
- To honor the tradition of community and hospitality, provide beverages and snacks. A World Café isn't complete without food and refreshments!

Ways to Make Collective Knowledge Visible

In a World Café, there are several ways to make collective intelligence visible:

- Use a graphic recorder to capture the group's ideas on a wall mural using text and graphics to illustrate the patterns of the conversation. To find a graphic recorder in your area see www.ifvp.org.
- Use harvesting support teams to cluster and display the specific ideas, insights, core questions, or recommendations emerging from table conversations.
- Invite participants to take a “gallery tour” to survey the work depicted on table tops, wall graphics, and other work spaces.
- Invite participants to share insights and suggestions using large Post-Its® and index cards that may be collected as part of the output from the Café.
- Document all work for use in conjunction with the results from other World Cafés on similar questions, if appropriate, in order to deepen and continue the exploration in widening networks of conversation and committed action.



Sustaining Insight and Action

With the World Café we have the opportunity to see our organizations and communities as living networks of conversation focused on our most important questions. From this perspective, conversation and action are not two separate domains but a single integrated process in which “conversations about questions that matter” is the ever-present ground for action.

The World Café creates a space for collaborative inquiry in which participants continually discover shared meaning, access collective intelligence, generate new knowledge, deepen trust, and experience new levels of creativity that are energizing and exciting. The entire experience fosters a strong sense of shared commitment and ownership of the outcomes of the process.

A World Café Hosting Guide

For More Information and Additional Resources

For more information and additional resources on the World Café process, the World Café design principles, or the global World Café community, please visit www.theworldcafe.com.

The World Café: Shaping our Futures Through Conversations that Matter, by Juanita Brown, David Isaacs and the World Café Community, contains exciting stories, extensive conceptual background, and more detailed guides for convening and hosting World Café dialogues in community, business, government, and other settings.



GLOBAL WARMING CAFÉ (MINI)

BEARING WITNESS TAKING ACTION

Materials: Laptop/PPT, Carbon Counter handouts, LCD books, paper/pens.

Logistics: Handout carbon counter fliers

Time: 1.5 to 2 hours

1. Welcome, Purpose and Introductions – 10 minutes

- Welcome & Purpose:
 1. To help you bear witness to the fact that life as we have known it on this planet has radically changed with global warming and based on this to provide you an opportunity to process your fears and hopes for the future.
 2. To learn how you can take personal action through participating in the Low Carbon Diet program as a household or as part of a team and spreading this tool to your community or workplace if you wish.
- Introductions: Invite participants to share their name, why they came, and what they would like from this experience. If a large event invite about 6 people.

2. Bearing Witness Exercise – 30 minutes

- Overview: Global Warming is the central organizing project of humanity. Write on flip chart.
 1. What, if any, are my fears about global warming for me, my family, my community and my planet's future inhabitants? (3 minutes)
 2. What, if anything, provides me hope that we can successfully address global warming? (3 minutes)
- Partner Share – 10 minutes
- Large Group Share – 10 to 15 minutes

3. Taking Action – 15 to 30 minutes

- This part of the Global Warming Cafe is designed to help participants take direct action to reduce their contribution to global warming and then encourage their community and workplace to do the same. Many of the actions are built around the *Low Carbon Diet*.
 1. If you have the capability and time, show power point slide show to build case for the effectiveness of the *Low Carbon Diet* program and the potential of it's grassroots mobilization strategy to effect substantive change. The slide show can be downloaded at www.empowermentinstitute.net/lcd -- go to Global Warming Café. Customize as appropriate for your situation. – 30 minutes
 2. If you have less time or do not have access to a projector use the following talking points. Consider putting 7 actions on a flip chart. – 15 minutes
 - ❑ *Low Carbon Diet: A 30 Day Program to Lose 5,000 Pounds* was written by David Gershon, an expert on environmental behavior change and large scale transformation.
 - ❑ It empowers households to be part of the global warming solution.
 - ❑ It is based on the experience of helping tens of thousands of people around the world measurably lower their environmental footprint and a successful pilot of the *Low Carbon Diet* program in Portland, Oregon.
 - ❑ The program enables individuals to calculate their carbon footprint and then choose from a menu of actions to reduce it. Participants are encouraged to reduce their footprint by a minimum of 5,000 pounds and consider becoming carbon neutral by reducing their footprint to zero.
 - ❑ The program can be done either as part of a team with friends or neighbors or co-workers; or as an individual household. The team is the most effective as it creates a peer support system and makes the whole process fun. If you wish to go further it also shows you how to engage others in your community or workplace.
 - ❑ The 7 actions are:
 1. *Lower Your Carbon Footprint: Participate in Low Carbon Diet: A 30 Day Program To Lose 5,000 Pounds.* We will be setting up

teams for those interested at the end of the Café. You can also get the book at the back table.

2. *Help Others Lower Their Carbon Footprint:* If you have already done the program or wish to immediately jump into gear engage others in your social network, neighborhood, civic organization, workplace or professional association and encourage them to participate in the program.
 3. *Start and/or Participate in a Cool Community Campaign:* Using *Low Carbon Diet* as a foundation, start a campaign where you live. For more information visit www.empowermentinstitute.net/lcd. Go to Cool Community Campaign.
 4. *Lead a Global Warming Café:* Lead a Café for your social network, neighbors, faith community, civic organization, professional network or community. For more information visit www.empowermentinstitute.net/lcd. Go to hosting a Global Warming Cafe.
 5. *Contribute:* Start an initiative, or contribute time and money to local, national and international initiatives addressing global warming.
 6. *Vote:* Support local, state and national political candidates who are supporting policies to reduce global warming.
 7. *Visualize Success:* Visualize or pray for the human community to successfully rise to the global warming challenge and take the necessary actions to forestall the crisis.
4. Invite any participants in attendance who have been through the program to share their experiences. – 5 minutes
 5. Q & A – Invite questions about the program and any of the actions. – 15 minutes
 6. Ask participants if they are willing to reduce there C02 emissions by 5,000 pounds. Make note of the number of people and multiply by 5,000 pounds and feedback to the group the collective impact of this Café.
 7. Thank people for coming. Invite those who wish to join teams to meet afterwards. Organize teams around geography and ask for a leader to step

forward to host the first meeting. Team members should try and organize date for the first meeting then, if possible. E-mail and phone info should be provided to the team leader. If managing a campaign capture the contact information of team leaders.

If format is not conducive to setting up teams, encourage participants to do this on their own. If you have books provide an opportunity for them to purchase them or invite them to get online at www.empowermentinstitute.net/lcd. – 10 to 15 minutes

GLOBAL WARMING CAFÉ **BEARING WITNESS... TAKING ACTION...**

A PROJECT OF EMPOWERMENT INSTITUTE WITH THE WORLD CAFÉ

PURPOSE

To help individuals process their fears and hopes for the future around global warming; and take personal responsibility for change through participating in a Low Carbon Diet team.

TIME

Recommended Saturday or Sunday 2 PM to 6 PM. Note: Can be abbreviated by reducing the rounds of sharing and background on Low Carbon Diet.

AGENDA

1. Welcome/Purpose/Introductions: 15 minutes
 2. World Café: 100 minutes
 3. Break: 15 minutes
 4. Taking Action: 90 minutes
- (10 minutes extra is built in at the start for people settling into the room and arriving late. All times indicated are estimates and can be adjusted as needed.)

ROOM SET-UP

Combine music with images, poetry, and stories placed around the room to evoke a planetary unitive field. Its purpose is to help us connect with the larger human community and inspire the possibility of us coming together to respond successfully to the climate crisis/opportunity. Consider the following:

- Post on flip chart paper examples of successful large-scale transformative change experiences that brought people together in a positive non violent way: Non Violent Civil Rights Movement / South Africa Reconciliation / Velvet Revolution / Berlin Wall / Live Aid Concert / We Are the World song / First Earth Run / Tsunami and Katrina Disaster Relief.
- Show photos to build the unitive field immersion experience as people are participating in Café. Two photo slide shows have been especially created for the Café. Kevin Kelley's NASA photos from space of the Earth and the First Earth Run images of the torch of peace going around that built a

planetary unitive field. Consider showing simultaneously on opposite walls. To download photo slide shows visit www.empowermentinstitute.net/lcd go to Global Warming Café. Or consider creating your own photo slide show.

- Play music as people are gathering that inspire a sense of our connectedness. Examples of music that inspire people with a sense of our connectedness and possibility includes: "Imagine" – John Lennon, "We Are the World", "One" – U2, "One Love" – Bob Marley, "All You Need is Love" – Beatles, "From a Distance" – Bette Midler. Play introspective music as people are talking and moving from table to table.
- Provide refreshments for people as they gather and during the break.

MATERIALS

Café tables, table clothes, flowers, colored pens, butcher paper for capturing learning and commitments, flip chart paper for posting Café guidelines and questions, name tags, CD's, CD player, computer(s), projector(s), Low Carbon Diet books and table for people who wish to purchase them, handout of Low Carbon Diet Table of Contents for those who wish a list of actions but are not ready to purchase a book.

CURRICULUM

1. WELCOME, PURPOSE AND INTRODUCTIONS – 15 MINUTES

- Welcome people and thank them for coming.
- Overview: Global Warming is the central organizing project of humanity. The Global Warming Café is a grassroots attempt to help individuals rise to the occasion.
- Purpose of Global Warming Café:
 1. To help you bear witness to the fact that life as we have known it on this planet has radically changed with global warming and based on this to provide you an opportunity to process your fears and hopes for the future.
 2. To learn how you can take personal action in your household and larger community to be part of the global warming solution through participating in Low Carbon Diet teams and spreading this tool to your community.

- Introductions: Invite participants to share their name, why they came, and what they would like from this experience. If a large event invite about a dozen people.

2. WORLD CAFÉ – 100 MINUTES

- Describe World Café format and guidelines. (See Appendix A at end of this document for world café background and guidelines.) – 10 minutes.
- Questions: Allocate approximately 15 minutes per round times 4 rounds (2 rounds per question) plus approximately 10 minutes for moving from table to table. – 70 minutes
 1. What, if any, are my fears for myself, my family, my community and my planet's future inhabitants?
 2. What, if anything, provides me hope that we can successfully address global warming?
- Invite spokespeople from tables to share essence of fears and hopes. First a round on fears, than round on hopes. If large Café, do with representation from some of the tables.
- Use a graphic facilitator to capture learning on large butcher paper displayed on one of the walls in the room. Divide into three sections: fears, hopes and actions (which you will do later). – 20 minutes

3. BREAK – 15 MINUTES

4. TAKING ACTION – 90 MINUTES

- This part of the Global Warming Cafe is designed to help participants take direct action to reduce their contribution to global warming and then encourage their community and workplace to do the same. Many of the actions are built around the *Low Carbon Diet*.
 1. If you have the capability and time, show power point slide show to build case for the effectiveness of the *Low Carbon Diet* program and the potential of it's grassroots mobilization strategy to effect substantive change. The slide show can be downloaded at www.empowermentinstitute.net/lcd -- go to Global Warming Café. Customize as appropriate for your situation. – 30 minutes

2. If you have less time or do not have access to a projector use the following talking points. – 15 minutes
- ❑ *Low Carbon Diet: A 30 Day Program to Lose 5,000 Pounds* was written by David Gershon, an expert on environmental behavior change and large scale transformation.
 - ❑ It empowers households to be part of the global warming solution.
 - ❑ It is based on the experience of helping tens of thousands of people around the world measurably lower their environmental footprint and a successful pilot of the *Low Carbon Diet* program in Portland, Oregon.
 - ❑ The program enables individuals to calculate their carbon footprint and then choose from a menu of actions to reduce it. Participants are encouraged to reduce their footprint by a minimum of 5,000 pounds and consider becoming carbon neutral by reducing their footprint to zero.
 - ❑ The program can be done either as part of a team with friends or neighbors or co-workers; or as an individual household. The team is the most effective as it creates a peer support system and makes the whole process fun. If you wish to go further it also shows you how to engage others in your community or workplace.
 - ❑ The 7 actions are:
 1. *Lower Your Carbon Footprint:* Participate in *Low Carbon Diet: A 30 Day Program To Lose 5,000 Pounds*. We will be setting up teams for those interested at the end of the Café. You can also get the book at the back table.
 2. *Help Others Lower Their Carbon Footprint:* If you have already done the program or wish to immediately jump into gear engage others in your social network, neighborhood, civic organization, workplace or professional association and encourage them to participate in the program.
 3. *Start and/or Participate in a Cool Community Campaign:* Using *Low Carbon Diet* as a foundation, start a campaign where you live. For more information visit www.empowermentinstitute.net/lcd. Go to Cool Community Campaign.

4. *Lead a Global Warming Café:* Lead a Café for your social network, neighbors, faith community, civic organization, professional network or community.
 5. *Contribute:* Start an initiative, or contribute time and money to local, national and international initiatives addressing global warming.
 6. *Vote:* Support local, state and national political candidates who are supporting policies to reduce global warming.
 7. *Visualize Success:* Visualize or pray for the human community to successfully rise to the global warming challenge and take the necessary actions to forestall the crisis.
5. Invite any participants in attendance who have been through the program to share their experiences. – 5 minutes
 6. Q & A – Invite questions about the program and any of the actions. – 15 minutes
 7. Invite participants to decide which action(s) they will take and share with someone sitting at their table. – 10 minutes
 8. Ask participants if they are willing to at a minimum, reduce their CO₂ emissions by 5,000 pounds. Make note of the number of people and multiply by 5,000 pounds and feedback to the group the collective impact of this Café. Indicate that those who wish to form teams will be meeting afterwards to get into teams. Ask how many are interested. (This question peaks interest and can generate momentum for the possibility of a Cool Community Campaign as people see what might be possible.)
 9. Invite a number of individuals to share their action(s) commitment in large group. Keep it focused on doable actions they will commit to, not something they wish others to do. If there are specific initiatives you wish people to participate in such as EcoTeams, future Global Warming Cafes, or a Cool Community campaign, indicate where people will meet after Café. If you have a visual recorder, record action commitments on butcher block paper. – 15 minutes
 10. Inspirational ending. Thank people for coming. Create a closure experience that inspires people. It could include music, poetry, etc. – 5 minutes.

11. Setting Up Teams: Organize teams around geography and ask for a leader to step forward to host the first meeting. Team members should try and organize date for the first meeting then, if possible. E-mail and phone info should be provided to the team leader. If managing a campaign capture the contact information of team leaders. If you have books provide an opportunity for them to purchase them or invite them to get online at www.empowermentinstitute.net/lcd. – 10 to 15 minutes

APPENDIX A

WORLD CAFÉ BACKGROUND AND GUIDELINES

Created by Juanita Brown and David Issacs, the World Café is a process that fosters conversations that matter in a creative and empowering way. The fundamental premise of the World Café is that this conscious conversation accesses a rich and deep wisdom found only in the collective. The World Café is not only a dynamic technique, but also an invitation into a way of being with each other that is profoundly respectful and collaborative.

CAFÉ ASSUMPTIONS

1. The knowledge and wisdom we need is already present and accessible.
2. Collective insight evolves from:
 - Honoring unique contributions
 - Connecting ideas
 - Noticing deeper themes and questions
 - Accessing the collective wisdom
3. Intelligence emerges as the system connects to itself in diverse and creative ways.

CAFÉ ETIQUETTE

- FOCUS on what matters
- CONTRIBUTE your thinking
- SPEAK your mind and heart
- LISTEN to understand
- LINK AND CONNECT ideas
- LISTEN TOGETHER for insights, patterns, and deeper questions
- PLAY, DOODLE, DRAW – writing on the tablecloths is encouraged
- ENJOY

HOW THE WORLD CAFÉ WORKS

1. Groups of four to six people sit together. If there are more than six the process doesn't work well. The Café is most interesting and effective when people sit with those they do not know.
2. Once the World Café begins the facilitator presents the questions to be explored.
3. For centuries indigenous peoples have used a talking stick to encourage mutual support and deep listening. Use a pen from the table or a symbolic object to pass around the table to each person. When you hold this object, it's your turn to speak and answer the question. No one should interrupt the person. Those listening are encouraged to write, draw, or doodle on the paper tables clothes as others talk. Once everyone has spoken then general discussion is encouraged.
4. You will move in four rounds of conversation at four different tables and cross-pollinate idea – carrying key insights, themes, and questions to each new conversation. Patterns emerge, additional perspectives surface, and surprising combinations of insight and creativity reveal themselves. The Café facilitator will let people know when to move to the next table.
5. Choose one person who would like to act as host and who will stay at the same table to welcome each round of guests. When the new guests are seated the host briefly shares the high points of last conversation and then encourages the guests, using the talking object, to link and connect ideas coming from their own table. As each person shares, the others continue to record and or draw key ideas and new connections on paper tablecloths.
6. As part of the fourth and final round the host will ask: "what's at the center of our conversation?" Invite people to "listen into the middle" for the deeper themes and larger patterns. Access the collective wisdom.
7. These insights will be shared in the larger group and if possible visually recorded for the larger community to observe.

RESOURCES

- *Low Carbon Diet: A 30 Day Program To Lose 5,000 Pounds*, David Gershon, Empowerment Institute, 2006. Can be purchased at www.empowermentinstitute.net/lcd. Quantity discounts available. Also available at www.amazon.com or through local bookstores.
- For resources on the Global Warming Café or Cool Community Campaign visit www.empowermentinstitute.net/lcd.

- *The World Café: Shaping Our Future Through Conversations That Matter*, Juanita Brown with David Issacs, Berrett Koehler, 2006. Can be purchased at www.amazon.com or local bookstores. This is the definitive resource on leading the world café process. Information is also available at www.theworldcafe.com.
- *An Inconvenient Truth*, Al Gore, Rodale Books, 2006. The book and DVD can be purchased at www.amazon.com or local bookstores. This book and DVD are one of the best resources for understanding the global warming issue and the case for taking action. It can be used when leading Global Warming Cafés for groups not well informed about the issue.

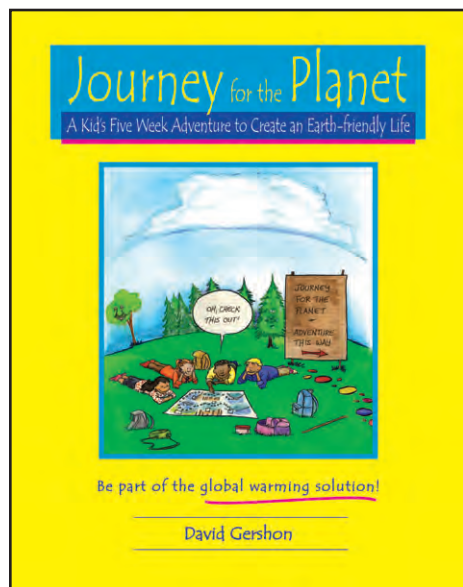
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JOURNEY FOR THE PLANET

A Kid's Five Week Adventure to Create an Earth-friendly Life

David Gershon



Journey for the Planet: A Kid's 5-Week Adventure to Create an Earth-Friendly Life is a fun, engaging illustrated workbook for every child who wants to make a difference for the world. Drawing on his successful **EcoTeam** workbook, which sold over 250,000 copies through a unique grassroots distribution model, environmental change pioneer David Gershon guides children through a series of action steps that can impact both climate change and the environment as a whole.

The book's core message is one of empowerment. Taught by a series of animal characters, each of its 46 action lessons illustrates in clear, accessible language exactly how a simple change in the child's behavior can positively impact the environment. The book's pilot program, which engaged 4,000 children in schools across the country, was praised by teachers, students and parents alike as an invaluable resource that empowers kids with the precious knowledge that they have the power to take the future into their own hands.

If you have children, nieces, nephews or students, you've probably seen the concern they feel for what is happening to our environment. Now, they have a program to help them translate that concern into concrete action, and feel the heroism of being part of the solution.

NR
NEW RELEASE

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\$12.95 US / PB

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8.5 x 11 \ 72 pages

Empowerment Institute

“JOURNEY FOR THE PLANET . . . IS AN ENVIRONMENTAL ADVENTURE. . . MUCH MORE THAN PLANTING SEEDS IN A MILK CARTON AND WATCHING THEM GROW . . . THE FOCUS IS ON EVERYDAY HABITS AND HOW TO TAKE ACTION. . . THERE WAS NO MISTAKING THE FEELING OF EMPOWERMENT AND SERIOUSNESS OF PURPOSE WHICH RIPPLED THROUGH THE FIFTH GRADERS [WHO COMPLETED THE PROGRAM].”

— The New York Times

- The book encourages kids to form an “EcoTeam” with other kids in their school to do the program together. This will lead to rapid word-of-mouth dissemination.
- The book makes a perfect companion volume to Gershon's already successful *Low Carbon Diet*, which engages adults in a step-by-step carbon reduction program. Participating parents who want to give their kids a way to get involved in going green can buy both books.
- The book is a direct outgrowth of David Gershon's acclaimed EcoTeam program. Praised by local and national government leaders as the most effective environmental behavior change program in existence, **EcoTeam** has helped over 250,000 people reduce their environmental footprint by 25%.



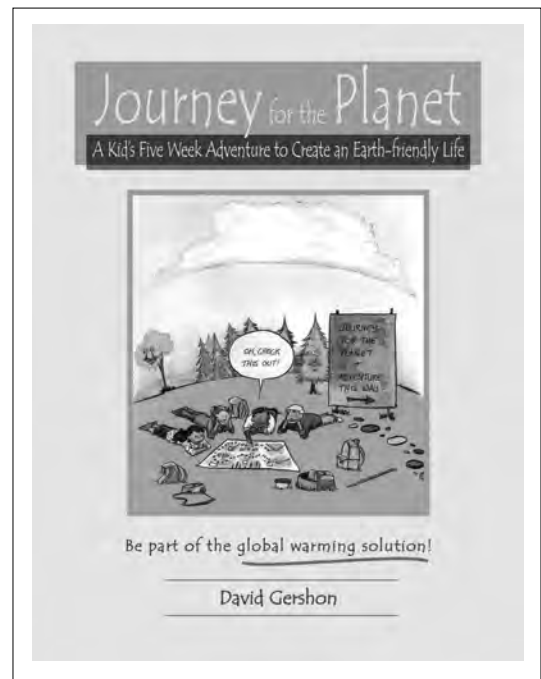
David Gershon is the author of nine books, including the bestselling **Empowerment: The Art of Creating Your Life As You Want It**. The founder and CEO of Empowerment Institute, he is one of the world's leading authorities on behavior change and large-scale transformation. At the height of the Cold War, he conceived and organized, in partnership with the United Nations Children's Fund and ABC Television, one of the planet's first major global initiatives, the First Earth Run, which engaged

millions of people in the passing of a symbolic torch of peace around the world. Since that time, he has addressed issues ranging from environmental behavior change to organizational talent development, from emergency preparedness to low-income neighborhood revitalization. He has lectured at Harvard, MIT, and Duke and served as an advisor to the Clinton White House and United Nations on behavior change and sustainability issues.



"Journey for the Planet . . . is an environmental adventure. . . . Much more than planting seeds in a milk carton and watching them grow . . . the focus is on everyday habits and how to take action. . . . There was no mistaking the feeling of empowerment and seriousness of purpose which rippled through the fifth graders [who completed the program]."

– New York Times



Kids, become part of the global warming solution with Journey for the Planet!

Journey for the Planet: A Kid's 5-Week Adventure to Create an Earth-Friendly Life is a fun, engaging illustrated workbook for every child who wants to make a difference for the world. Following the tried and tested methodology of his acclaimed *Low Carbon Diet*, environmental change pioneer David Gershon guides children through a series of action steps that can impact both climate change and the environment as a whole.

The book's core message is one of empowerment. Taught by a series of animal characters, each of its 46 action lessons illustrates in clear, accessible language exactly how a simple change in the child's behavior can positively impact the environment. The book's pilot program, which engaged 4,000 children in schools across the country, was praised by teachers, students and parents alike as an invaluable resource that empowers kids with the precious knowledge that they have the power to take the future into their own hands.

If you have children, nieces, nephews or students, you've probably seen the concern they feel for what is happening to our environment. Now, they have a program to help them translate that concern into concrete action, and feel the heroism of being part of the solution.

Join the growing number of Americans who have decided to take global warming into their own hands.



JOURNEY FOR THE PLANET WORKBOOK MAIL-IN ORDER FORM

For every book you order, \$3 will be donated to Unitarian Universalist Ministry for Earth

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\$35.01 - \$70.00 = \$10.00	\$200.00 - \$249.99 = \$35.00
\$70.01 - \$99.99 = \$15.00	\$250.00 - \$299.99 = \$45.00
\$100.00 - \$149.99 = \$19.00	\$300.00 and over please call

THE JOURNEY

You are about to go on an amazing journey—one that will help you and the planet. It will be fun, challenging and exciting. Over a five week period you will learn how to take action to use our Earth's precious and limited natural resources with greater care. Your efforts to live an Earth-friendly life will help make sure there are enough resources so that others can live their lives now and in the future. It will also help you become part of the global warming solution. Each week of the journey, you will meet an animal guide who will offer special knowledge to help you.

Earthy, a friendly earthworm, will be your guide on the first part of your journey called, "Dumping on Garbage." A playful and fun-loving frog named Pondsy will be your guide and companion for the second part, "Wasting Water is All Wet." Sky, the eagle, has seen a lot and will share some ancient knowledge with you in the third part of your journey, "Getting a Charge Out of Saving Energy." The fourth part of your adventure, "Good Buys Are Forever," is guided by Munk, a busy little chipmunk who's always running around. In the final part of your journey, "Watch Out Planet, Here I Come!," a wise dolphin named Magic will guide you in teaching others how to help the planet.

To make your adventure more fun, invite a friend to join you. Your friend and you can form your own "EcoTeam!" Having someone to talk to about your successes and challenges will make your journey more enjoyable and rewarding.

Have a great journey. The planet is counting on you!

INSTRUCTIONS FOR GOING ON THE JOURNEY

1. Read all the actions in the part of the Journey you are about to take and decide which ones you want to do. Each action has a point value which helps you know how much effort is required. A one point action is easier or saves less resources than a two or three point action. If you want to achieve Global Hero status, you need to take enough actions to equal the required point total for that section.
2. Decide on the actions you will do. Then enter the day and time you will do each action on your travel log in the column: "Action Plan."
3. Show your action plan to your parent(s) so they are aware of what you are doing and can give you suggestions. Check off on your travel log when you have done this in the column "Shown to Parent(s)."
4. After you have done each action, check it off on your travel log in the "Action Done" column.
5. When you complete each part of the Journey, total the points you have earned and enter it at the bottom of that section of the travel log where it says "Global Hero Points Earned." You're now ready to move on. Repeat steps 1-5 for each part of the journey.

That's it! Have fun as you help improve life on our planet for yourself, other kids, parent(s), animals and all the plants and trees.

Thanks for caring and taking this journey for the planet.





DUMPING ON GARBAGE—TRAVEL LOG

Actions	Action Plan		Shown to Parent(s)	Action Done	Points
No Garbage Lunches	Day:	Time:	<input type="checkbox"/>	<input type="checkbox"/>	3
Bag Bags	Day:	Time:	<input type="checkbox"/>	<input type="checkbox"/>	1
Wipe Swipe	Day:	Time:	<input type="checkbox"/>	<input type="checkbox"/>	1
Gesundheit!	Day:	Time:	<input type="checkbox"/>	<input type="checkbox"/>	1
If Your Eyes Are Bigger Than Your Stomach	Day:	Time:	<input type="checkbox"/>	<input type="checkbox"/>	2
Let It Rot	Day:	Time:	<input type="checkbox"/>	<input type="checkbox"/>	3
Every Little Bit Helps	Day:	Time:	<input type="checkbox"/>	<input type="checkbox"/>	3
Artist at Work	Day:	Time:	<input type="checkbox"/>	<input type="checkbox"/>	1
Trash or Treasure	Day:	Time:	<input type="checkbox"/>	<input type="checkbox"/>	3
Back by Popular Demand	Day:	Time:	<input type="checkbox"/>	<input type="checkbox"/>	3
Relating to Nature: Branching Out	Day:	Time:	<input type="checkbox"/>	<input type="checkbox"/>	1

Points Needed: 12

Global Hero Points Earned

DUMPING ON GARBAGE

YOUR GUIDE: THE EARTHWORM

I am Earthy, your guide for the first part of your journey, "Dumping on Garbage." Why should you listen to me?, you may ask. The reason is that I am one of nature's best recyclers! I eat up bits of garbage and turn them into fresh soil. I would like to share with you what I know about living an Earth-friendly lifestyle. Humans throw away tons of garbage every day. The sad part is that there is no such place as "away." If you think about it, your garbage has not gone "away," it has only been taken to someplace out of your sight. People need to change their throw-away habits.

The Earth's recycle creatures, like me, cannot keep up with all the garbage, and that's not good. Each person needs to learn to reduce the amount of garbage he or she *personally* creates. This part of the Journey will help you do that.

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The Earth's recycle creatures, like me, cannot keep up with all the garbage, and that's not good. Each person needs to learn to reduce the amount of garbage he or she *personally* creates. This part of the Journey will help you do that.

NO GARBAGE LUNCHES

WHY ACT?

If your throwaway habits are like those of most kids, the garbage you send to a landfill every year takes up a space big enough to park a small car in! Much of this comes from your school lunch, picnic trash, or snacks at a friend's house. Plastic wrappers you throw "away" may stay in a landfill for 70 years. A glass bottle will not melt until it reaches a temperature of 2,000° F. Melting glass wastes a lot of energy even if you recycle it! The paper bag you use could have been replaced by a reusable one made of cotton or cloth. This Earth Action will help you to reduce the amount of garbage you send to the landfill.

EARTH ACTION

- Package your food and drink in materials that are designed for more than one use (airtight plastic containers with lids for sandwiches, salads, and snacks, and a thermos for your drink).
- Use your backpack, a reusable bag, or a cloth bag to carry your lunch.

MATERIALS

- Cloth bag or backpack, plastic containers, and a thermos.

TIME

- About 15 minutes to search through cupboards.

RESOURCE SAVINGS

You save landfill space, resources, and energy! This action needs repeating. For committing to a new habit for the Earth, you deserve a pat on the back!



START

BAG BAGS

WHY ACT?

When you buy things at a store, the person behind the counter often puts it in a bag for you. On just one shopping trip to a mall, you could end up with five or six bags! This Earth Action will help you to reduce the number of bags you use.

RESOURCE SAVINGS

Paper is made out of trees. If you say "no thanks" to two bags a day, that's over 700 bags per year, and you will save one 15-year-old tree from destruction! If you listen carefully to the leaves of a tree rustled by a breeze, you will hear the tree saying, "Thanks!"

EARTH ACTION

- Take your backpack or cloth bag when you go shopping. Whether you need to store your lunch, want to buy a gift for a friend, or just want to keep a sweatshirt handy, your backpack is the answer!
- The next time a store clerk asks, "Paper or plastic?" the answer is, "Neither. I have my own!"

MATERIALS

- One sturdy backpack.

TIME

- No time at all!



WIPE SWIPE

WHY ACT?

Paper napkins are popular because they are inexpensive and handy to use. However, they are not cheap for the Earth. The average North American kid uses 700 napkins per year. While napkins are only a small part of the paper problem, they are a good example of the needless waste of trees. This Earth Action will help you take a step toward reducing your overall paper use.

EARTH ACTION

- Volunteer to set the table for meals this week.
- Swipe the wipes! Set out cloth napkins or small hand towels instead of paper napkins.
- If someone asks, "Why cloth?" just say, "Why waste a tree?"
- Keep a cloth towel handy in the kitchen at all times for mopping up small spills and wiping hands.

MATERIALS

- Cloth napkins or small cotton hand towels.

TIME

- No time at all!



RESOURCE SAVINGS

You save trees and the energy to make paper, and landfill space. While the impact on the Earth seems small, it is a visible change in the way you live.



START

GESUNDHEIT!

WHY ACT?

Hay fever, dust, wind, pollen—there are many reasons why people sneeze. When you sneeze, what do you reach for? When you have a runny nose, what do you use? If you're the typical North American kid, you probably reach for a paper product—tissues. By using a handkerchief, you eliminate the need for tissues and the box. This Earth Action, like "Bag Bags" and "Wipe Swipe," will help you to reduce the amount of paper you use unnecessarily.

RESOURCE SAVINGS

You save trees and the energy to make paper tissues.

EARTH ACTION

- Carry a washable handkerchief or colorful bandana in your pocket or backpack. Now you don't have to run for the tissue box when you feel a sneeze coming on!

MATERIALS

- Handkerchief or colorful bandana.

TIME

- Just a few minutes to rummage through a drawer for a handkerchief.



AH-CHOO!

GESUNDHEIT!



IF YOUR EYES ARE BIGGER THAN YOUR STOMACH

WHY ACT?

Do you find that your eyes are sometimes bigger than your stomach? When you order food at a restaurant, do you end up with a "doggie bag"? That packaging has a cost to the Earth, as you have already learned. But what can you do about it? This Earth Action will help you to avoid unnecessary packaging.

EARTH ACTION

- Bring your backpack or cloth bag to the restaurant, along with a clean, durable, reusable plastic container that has a lid.
- When you are finished with your meal, take out your container and put any leftovers in it.
- If the waiter or waitress asks you if you want a doggie bag, just bag your own!
- See if anyone in your family would like you to bring a container for them.

MATERIALS

- A backpack and a durable, reusable container that can be sealed tight.

TIME

- About 15 seconds!



RESOURCE SAVINGS

You save paper, aluminum foil, Styrofoam, and the energy to produce this packaging. For making this action a good habit in your new lifestyle, the Earth is smiling at you!



START

LET IT ROT

WHY ACT?

A few scraps of food left on your plate at the end of a meal is garbage, right? Only if you send it to a landfill. The average North American kid sends close to his or her own weight in food scraps to landfills every year! This Earth Action will show you how to compost your food scraps to turn them back into fresh soil that can grow new plants again.



RESOURCE SAVINGS

You save landfill space. A lot of landfills will go to waste when kids like you start composting!

Would you like to amaze your friends? Bury an egg in the middle of your mound. Compost mounds can reach temperatures of 125° F to 140° F in just a week! That's hot enough to boil an egg. The egg should be hard-boiled in 2 or 3 days. (This is an experiment, so don't eat the egg.)

EARTH ACTION

- Ask your parent(s) for permission to set up a compost pile in the yard. If you live in a city, you can still compost using a worm bucket. Call your local plant nursery for details.
 - Set a bucket with a tight-fitting lid next to your kitchen trash can.
 - After every meal, scrape your non-meat leftovers into the bucket and close it tight.
 - Every few days or so, take your scrap bucket outside and add the contents to your compost pile.
 - A compost mound can be made of food scraps only, or can have yard waste in it as well. Here's how:
 - ✓ Put a layer of sticks 3 feet long and 3 feet wide on the ground.
 - ✓ Add a 2- or 3-inch layer of dry brown grass leaves or soil.
 - ✓ Add a 2- or 3-inch layer of green grass clippings, if you have it.
 - ✓ Dig a hole in the middle of your mound, and drop in your leftovers.
 - ✓ Cover the hole with soil or yard waste to discourage animals from having a picnic.
 - ✓ Water your compost lightly several afternoons a week.
 - ✓ Stir and turn it with a rake or shovel every week or so.
 - If you don't have any of the above materials, don't worry. Just about anything that comes from plants will turn back into soil, given time.
 - Volunteer to be your family's household composter!
- Note: Your family can purchase a composter instead of building one.

MATERIALS

- Food scraps, bucket and lid, sticks, and yard waste.

TIME

- About 1 hour for setup, 3 minutes every few days for care.



EVERY LITTLE BIT HELPS

WHY ACT?

Almost no matter where you look nowadays, you see litter. You find cigarette butts, candy wrappers, newspapers, and more littering the landscape of America. Some people throw stuff "away" on city streets, in wildlife parks, and on country roads. The sad part is that people are the only creatures on Earth who litter! Animals can often be hurt by human litter. Birds and fish can strangle in six-pack rings, and animals that eat Styrofoam can die.

You may not personally litter, and it may make you mad to see others do it. But you can do something about it. By doing this Earth Action, you can make your neighborhood safer for animals and more beautiful at the same time.

EARTH ACTION

- Get a few friends together, choose a site, and pick it up!
- If possible, recycle any litter.

MATERIALS

- Gloves for each person in your group, plastic bags or other container to collect the litter, and signs that say "Pitch In" to alert passersby.

TIME

- Plan on several hours!

RESOURCE SAVINGS

You improve the natural environment.

You can be proud of the difference you are making for your world!



START

ARTIST AT WORK

WHY ACT?

How many pounds of paper does the average kid in North America use in one year? 100 pounds? 200? Actually, the real number is almost 600 pounds per year! Only about 45 pounds of that goes to recycling centers, while more than 500 pounds goes to landfills.

The key here is to use the other side of the page when doing homework or drawing. This Earth Action will help you to cut paper use in half.

RESOURCE SAVINGS

You save up to 300 pounds of paper per year. That's enough paper to cover the outside of a small skyscraper.

EARTH ACTION

- Label a box "Paper" and keep it in your room or wherever you work.
- Once you use one side of a piece of paper, add it to the box.
- Whenever you feel like doodling or drawing, use paper from the box.
- Cut some up for scrap, and leave it near the phone for messages.

MATERIALS

- Box, marker, and used paper.

TIME

- About 5 minutes.



START

TRASH OR TREASURE

WHY ACT?

The “trash” you have built up over the years can become someone else’s “treasure”! If you do a careful search around your home, you will probably find lots of toys, clothes, games, and other things that you no longer have a use for. This Earth Action will help you to find good homes for some of the things you have outgrown or no longer want.

EARTH ACTION

- Round up any items you no longer use.
- Show your parent(s) your collection. They may want to take some of the items that they consider special and store them for you to hand down to your children.
- Recycle the remaining items by trading them with your friends or donating them to a nonprofit agency such as the Goodwill or the Salvation Army.

MATERIALS

- Boxes and bags.

TIME

- About 2 hours for you to round up and sort through your stuff.



RESOURCE SAVINGS
You save all the resources it would take to make more of what you're giving away!



START

BACK BY POPULAR DEMAND

WHY ACT?

How much garbage do you produce? Just a couple of pounds a day maybe? That means that in one year, you produce almost 800 pounds of garbage, which ends up in a landfill! That's equal to the weight of one very large gorilla!

Landfill areas are filling up and closing. It is becoming difficult to site new landfills because no one wants them in their community. You can learn to recycle your own garbage. This Earth Action will show you how to create a recycling center in your home for everyone to use.

RESOURCE SAVINGS

*You save
sending over
half your garbage
on a permanent trip
to the landfill!*

EARTH ACTION

- Call or visit your local recycling center to see what is recyclable in your community.
- Place four bags or boxes in some out-of-the-way spot.
- Label the bags or boxes "Glass," "Cans," "Newspaper," and "Plastic."
- Show your family where things go.
- Save, clean, and separate all your recyclables.
- Take off bottle caps and rings, as they are not recyclable in most places.
- If your community does not have a pickup service, take your recyclables to the recycling center.

MATERIALS

- Bags or boxes, markers, and transportation.

TIME

- 30 minutes for setup.



RELATING TO NATURE: BRANCHING OUT

WHY ACT?

Paper makes up one-third of all landfills. The sad part is that paper is recyclable and need not be in a landfill. Paper is made from trees. The average kid will use seven trees a year to live his or her life. Trees also breathe in carbon dioxide. This prevents it from going into the atmosphere and causing global warming. This five week program will help you to save at least two of those trees. And this Earth Action will help you to appreciate trees so that you will be more aware whenever you do use paper.

EARTH ACTION

- Find a tree that you think is special. Feel the bark. Trace the lines and look for places where insects or animals live. If it's a warm day, lie down in the shade of your tree. What do you see? Breathe in the oxygen this tree is making for you. What do trees give you besides oxygen?
- Draw a picture, or write a poem or short story about your tree.
- Share your creation with someone else, or take someone to your tree.
- Post your creation in your room to remind you of the importance of all trees.

MATERIALS

- Pen, paper (recycled), and markers.

TIME

- About 2 hours.



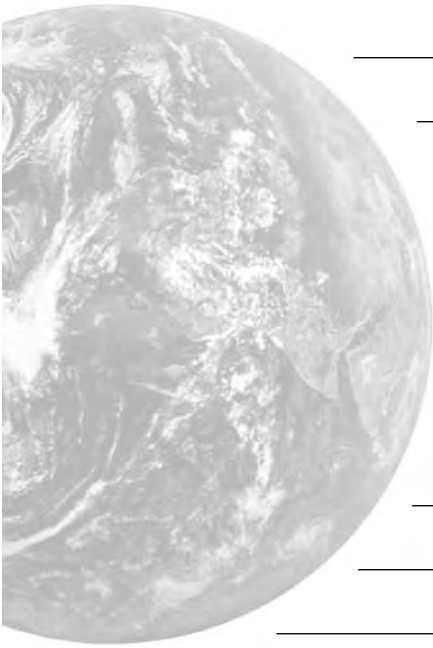
RESOURCE SAVINGS

If we appreciate trees' special role in improving our lives, reducing global warming, and adding beauty, we will be more careful in how we use them.



START

JOURNEY NOTES





GLOBAL WARMING: CHANGING CO₂URSE

A FOUR-WEEK DISCUSSION GUIDE FOR THE WORKPLACE, FAITH CENTER, OR HOME

*“We are no longer passive victims of the climate system’s slow oscillations;
we are now, as a collective, atmospheric engineers.”*

- Alan AtKisson

GOALS:

- ♦ To explore personal values and habits as they relate to climate change.
- ♦ To understand the history and science of global warming.
- ♦ To empower individuals to take action to curb global warming.

SESSION ONE.....OFF COURSE

Communities around the world are experiencing the effects of global warming. This session explores personal responses to climate change and why society has been slow to respond.

SESSION TWO.....COLLISION COURSE

To better understand the complexities of global warming, this session breaks down the history and science of global climate change, and identifies our participation in this ecological crisis.

SESSION THREE.....CHANGING COURSE

Although global warming is a daunting issue, there are accessible and significant actions we can all take. This session explores new strategies for addressing climate change and considers personal action to mitigate the effects of global warming.

SESSION FOUR.....SETTING A NEW COURSE

What will it take to create a sustainable future? Explore our individual and collective power to shape an effective response to climate change, enabling future generations to meet their needs.

For more information on how to start a course in your community, please contact the Northwest Earth Institute at (503) 227-2807, or visit the website www.nwei.org.

By selecting UU Ministry for Earth/UUA Green Sanctuary Program as your affiliation, NWEI shares some of the profit with UUMFE.



Quotes about NWEI Discussion Courses

"Action on the environment comes from thinking about it – it comes from real conversations about real facts, our real lives, our real hopes. Northwest Earth Institute is one of those places that make those conversations happen, and that's why they're a vital part of the change we need to see." -Bill McKibben, Author of *The End of Nature*, *Deep Economy*, and many others.

"The Work of the Northwest Earth Institute is essential – now more than ever. The planet is clearly in a state of crisis – and we're going to have to do things differently if we want different results. This will require both individual and collective change. Personally, I admire the NWEI's model for change – the critical role of personal awareness and responsibility at the personal, bioregional, and planetary level, and from that place of care, taking action." – Susan Gleason, Media and Outreach Manager, *YES Magazine*

"NWEI has simply created the most amazing, enjoyable and best put-together curriculum for motivating and empowering individuals to become part of the solution towards a sustainable future." -Steve Frost, Portland, OR

"Participating in NWEI courses has changed who I am. The discussion groups are an excellent format for sharing your ideas in a safe environment. It lets you know you're not alone. Sometimes it's hard to actually make a life-changing commitment based on the new ideas you've encountered, but it's easier to take that step when you know others are taking it with you. I feel like I am a stronger global community member as a result of the thinking, discussing, and acting that the NWEI courses facilitate." -Roy Swart, Technology Development Engineer

"The NWEI discussion groups have opened my eyes to numerous environmental and social issues and have also given me tools for being a part of the solution. The discussions are the highlight of my week! I look forward to them as I read through the session material, and I always come out of them feeling energized." -Julie Fleischer, Standards Architect, Digital Health Group, Intel Corporation

Global Warming: Changing CO₂urse

"The course has strengthened my resolve to act constructively in the face of this daunting challenge, both individually and collectively with others of like mind. Taking such action further empowers me to forge ahead with renewed enthusiasm and optimism that together we do make a difference!" -Participant in Caledonia, MI

Global Warming: Changing CO₂urse

"I have a much greater understanding of the issue and what can be done. I've begun making changes in my life: using mass transit more, walking more to my job and shopping, unplugging appliances when not in use and am more conscientious in recycling and reusing." -Participant in Beaverton, OR

"Addressing global warming has moved to the #1 issue in my book. I will be seeking ways to reduce my energy footprint and those of everyone I can influence." -Portland, OR participant

"The course has helped me get a better perspective on the problem, and its solutions." -Portland, OR participant

Voluntary Simplicity

"The voluntary simplicity course is beautifully put together, and the readings are well-chosen and diverse. The format of the course is ideal for encouraging discussion and growth. The course provided an opportunity to reflect on current lifestyle, and sparked positive, healthy changes in buying, consumption, transportation, community, sustainability and living. Many thanks to the Northwest Earth Institute for this service you make possible!"
-Allison Cruse, Alamosa, CO

Choices for Sustainable Living

"The Choices for Sustainable Living course is wonderful! I am learning so much and my eyes are opening every day to new ways I can help make things right for the planet. Thank you for creating such great learning materials!"
-Ginger Strand, Dallas, TX

"The Choices in Sustainable Living and Voluntary Simplicity courses inspired me to condense my thoughts into personal action. I am more aware and finding opportunities everywhere!! Rather than being overwhelmed, I feel empowered to do what I can now." -Bala Cadambi, Director, I/O Technologies & Standards, DEG Architecture and Planning

Exploring Deep Ecology

"Literally, when I step on the Earth and view the Earth, I have more reverence, awe and respect. I am more aware of the relationships of all inhabitants of the Earth. My ears are much more attuned to ecological issues I see and hear in the media. Thank you so much for your commitment to helping more of us appreciate our homeland, the Earth." -Deep Ecology course participant

Exploring Deep Ecology

"I really enjoyed the discussion style of the course. It was wonderful to hear everyone's different viewpoints and opinions...The diversity caused me to think a great deal about my own ideas and beliefs, and in many cases was inspiring." -
Deep Ecology participant

Healthy Children-Healthy Planet

"The course has been very affirming of our thoughts and values in raising our children. It gave us insight into how others use their values and beliefs to actualize family growth and traditions. Thanks for the wonderful course book."
-Cami Curran, Columbus, OH

Globalization and Its Critics

"This class has brought things to a whole new level for me. It's both ideal and practical, internal and outward. It has spurred and will continue to spur me on to a more simple and thoughtful life." -Globalization and Its Critics participant

Discovering a Sense of Place

"I loved the course! It gave me so many new concepts, I got to know my bioregion better, and my new consciousness has increased my sense of responsibility. The course has encouraged me to take local classes on bioregion topics and buy more locally produced food. It has given me a lot to be excited about and has helped me develop more constructive attitudes about change on the planet." Grants Pass, OR participant

For more information about the discussion courses, please contact:

Northwest Earth Institute
317 SW Alder St, Suite 1050
Portland, OR. 97206
503-227-2807

contact@nwei.org, www.nwei.org





CREATE AN ENVIRONMENTAL EDUCATION RESOURCE CENTER IN YOUR LOCAL LIBRARY

This idea came out of a unique city-wide inter-denominational group the green sanctuary task force of the UU Congregation of Santa Fe called together to brainstorm ideas that participating churches could use to get their congregations involved in experiential activities to help curb global warming. The "BrainStormers," as they became known, represented eight denominations in Santa Fe.

The task force felt that Santa Fe needed one central resource center where those interested in the global warming situation could find information and materials. We approached the director of the branch library system with the idea and made this proposal: If they would establish a single location in a branch library for the books and materials, our organization would furnish appropriate materials that would fill any important gaps in the library's present collection.

The library liked the idea! The advantage to the library is that additional materials do not come out of their budget, and the advantage to the interested public is that we only have to go to one site to find the most complete and available collection in Santa Fe. We have subsequently obtained the support of Borders for the project, to the extent that they will give us the best possible discount on books for the Center, as well as assisting us in locating good used books to assist our budgets. We also formed an inter-denominational team to handle the project.

At the library director's suggestion, we named the center the "Environment Education Resource Center," for two reasons: a) While there are those who might argue with "global warming" or "climate change," we felt no one would dispute an "environment education" center; and b) including "education" indicated that the function of the center went beyond just loaning out books, but also included outreach learning programs for schools, congregations, and others.

For congregations or other organizations wishing to implement such a center in their locale, following are the specific roles of each of the participant bodies:

ENVIRONMENT EDUCATION RESOURCE CENTER

Model: Santa Fe (NM) Southside Public Library

Participant Organizational Roles & Responsibilities

A. Role of Support Organization(s) (i.e. Interfaith Task Force)

1. Computer inventory library global warming/climate change/environment materials already in the library system.
2. Circulate the inventory to knowledgeable people, asking them to determine any materials gaps that need to be filled to complete the overall environment education inventory.
3. Supply the library with those materials, at the library's discretion, with no charge to the library.
4. Maintain an on-going assessment of needed materials as they become available and provide those materials, at the library's discretion.
5. Provide appropriate environmental training for library staff and outreach programs for students and public, utilizing Center's materials.

B. Role of Library

1. Provide a specific location within the library where all environmental materials can be located and available, for either on-site or checkout use.
2. Advise the support group(s) if the staff becomes aware of any material needs within the Resource Center that would improve its functioning.
3. Provide normal library services to patrons of the Center.

C. Shared between Support Organization (s) and Library

1. The Library and the support group(s) work together to develop outreach Educational Programming for schools, congregations, and other appropriate members of the community. Programs will be based primarily on Resource Center materials, with the support group(s) providing the presenters.
2. Jointly evaluate after a trial period of one year.

Threat of Global Warming/Climate Change
Statement of Conscience, Final Form
Unitarian Universalist Association of Congregations
Monday, June 26, 2006

Earth is our home. We are part of this world and its destiny is our own. Life on this planet will be gravely affected unless we embrace new practices, ethics, and values to guide our lives on a warming planet. As Unitarian Universalists, how can our faith inform our actions to remedy and mitigate global warming/climate change? We declare by this Statement of Conscience that we will not acquiesce to the ongoing degradation and destruction of life that human actions are leaving to our children and grandchildren. We as Unitarian Universalists are called to join with others to halt practices that fuel global warming/climate change, to instigate sustainable alternatives, and to mitigate the impending effects of global warming/climate change with just and ethical responses. As a people of faith, we commit to a renewed reverence for life and respect for the interdependent web of all existence.

A Matter of Science

There is scientific consensus that the Earth's climate is changing due to global warming/climate change caused primarily by the human use of oil, coal, and natural gas. The burning of these fossil fuels releases carbon dioxide into the atmosphere, which traps more heat from the sun. Global warming/climate change is accelerating as planetary temperatures reach record highs. The melting of polar ice and mountain glaciers may cause sea levels to rise by at least three feet, probably much more, and by eighty feet in coming centuries if the average temperature rises five degrees, warming that will be difficult to avoid. Half of the world's plant and animal species are at risk of extinction by 2100 as habitats are destroyed and ecosystems unravel. The huge Siberian permafrost peat bogs are apparently starting to melt, releasing methane and accelerating global warming/climate change. Antarctic glaciers are sliding into the ocean faster than previously expected, which may result in worldwide coastal flooding. Rapidly melting polar ice caps and glaciers provide visual evidence of global warming/climate change. Indirect effects due to melting polar and Greenland ice can upset the delicate salt balance in the North Atlantic Ocean, triggering a shift in the thermohaline current, which ironically may result in a local ice age in Northern Europe and parts of North America.

Increasing temperatures can devastate human communities and wildlife habitats. Warmer climates are extending toward the poles, dramatically altering ecosystems. Melting polar ice caps raise sea levels and upset the delicate balance of ocean salinity. This imbalance may lead to a shift in ocean circulation patterns, which could wreak havoc with regional climates. Recent increases in sea surface temperatures are linked with more intense hurricanes.

Global warming/climate change can cause both increases and decreases in local temperatures and precipitation. Until now the effects of global warming/climate change have been proportionate to increases in greenhouse gas concentrations. We can minimize the damage of climate change only if we act vigorously and soon--in the next decade according to top climate scientist. Since human-generated greenhouse gases are at a level not seen for at least 600,000 years, effects will persist and increase for a while even as we begin to control emissions. Climatic changes, combined with habitat destruction and pollution, are causing loss of species,

forests, human settlements, glaciers, and coastal heritage sites. All living organisms depend on ecosystems that can be sustained only in relatively narrow temperature ranges.

The recent rapid global average temperature increase is indeed the result of human activity. While the climate is always changing, attribution studies using sophisticated supercomputer global climate models show that natural causes do not account for the recent rapid temperature increase and that human activity does. See the 2001 IPCC/SPM report, Figure 2.4.

A Matter of Faith and Justice

As Unitarian Universalists, we are called by our seventh Principle to affirm and promote “respect for the interdependent web of all existence of which we are a part.” We envision a world in which all people are assured a secure and meaningful life that is ecologically responsible and sustainable, in which every form of life has intrinsic value. In other words, Unitarian Universalists are called to defer to a balance between our individual needs and those of all other organisms. Entire cultures, nations, and life forms are at risk of extinction while basic human rights to adequate supplies of food, fresh water, and health as well as sustainable livelihoods for humans are being undermined. To live, we must both consume and dispose. Both our consumption and our disposal burden the interdependent web of existence. To sustain the interdependent web, we must burden it less while maintaining the essentials of our lives. Hurricanes Katrina and Rita are painful omens of how racism, sexism, and poverty worsen the effects of global warming/climate change. Our world is calling us to gather in community and respond from our moral and spiritual wealth; together we can transform our individual and congregational lives into acts of moral witness, discarding our harmful habits for new behaviors and practices that will sustain life on Earth, ever vigilant against injustice.

A Matter of Policy

Global warming/climate change is not only an environmental phenomenon; it is a hotly contested policy issue. All countries, in particular developing countries, will be unable to protect their residents from sea level increases, frequent and intense droughts, heavy rains, and violent hurricanes and tornadoes. Species worldwide face extinction from these same events. It is a bitter irony and a grave injustice that economically developed countries that are most responsible for global warming/climate change possess the wealth, technology, and infrastructure to cope with its negative effects, while those who have the least will have the largest burdens to bear.

In 1992, the United States ratified the United Nations Framework Convention on Climate Change. The Convention calls for its signatories to stabilize their greenhouse gas emission rates. It also states that economically developed countries will take the lead in reducing greenhouse gas emissions and not use scientific uncertainty about some aspects of climate change as a cause for delaying an immediate response. While the scientific evidence is solid, there seems to be an effort by some to confuse the public. To date, the United States has not ratified the Kyoto Protocol to the Convention, which sets milestones for reducing greenhouse gas emission rates. International cooperation is critical for addressing this global dilemma.

A Call to Action

Affirming that we are of this earth and that humankind has brought about global warming/climate change, we, the member congregations of the Unitarian Universalist Association, pledge to ground our missions and ministries in reverence for this earth and responsibility to it as we undertake these personal practices, congregational actions, and advocacy goals.

Personal Practices

- Reduce our use of energy and our consumption of manufactured goods that become waste;
- Use alternative sources of energy to reduce global warming/climate change and to encourage the development of such sources;
- Choose the most energy-efficient transportation means that meet our needs and abilities (e.g., walk, bike, carpool, use mass transit and communication technologies, and limit travel);
- Determine our personal energy consumption and pledge to reduce our use of energy and carbon emissions by at least 20 percent by 2010 or sooner and into the future;
- Reuse, recycle, and reduce waste;
- Plant and preserve trees and native plants and choose sustainably harvested wood and wood products;
- Eat and serve energy-efficient food that is locally produced and low on the food chain;
- Use financial resources to encourage corporate social responsibility with reference to global warming/climate change;
- Model these practices by committing to a life of simplicity and Earth stewardship;
- Consume less, choose appliances that are rated energy-efficient (e.g., by the EPA Energy Star Program), and choose products and materials that are made from renewable resources and can be recycled at the end of their usefulness; and
- Commit to continue to learn about the science, impact, and mitigation of global warming/climate change and communicate this knowledge by teaching about and discussing the problems and dangers of, and actions to address, climate change.

Congregational Actions

- Celebrate reverence for the interdependent web of existence in all aspects of congregational life;
- Treat environmentally responsible practices as a spiritual discipline;
- Seek certification through the Green Sanctuary Program of the Unitarian Universalist Ministry for Earth;
- Educate ourselves, our children, and future generations on sustainable ways to live interdependently;
- Whenever possible, plan congregational facilities around proximity to public transportation and encourage congregants, as they are able, to travel by public transportation, walking, biking, and carpooling;
- Seek U. S. Green Building Council Leadership in Energy and Environmental Design (LEED) certification for all new congregational building projects and use LEED guidelines for renovation projects;

- Use congregational financial resources to positively address the global warming/climate change crisis;
- Practice environmentally responsible consumption and encourage voluntary simplicity among members;
- Build a broader base for environmentally mindful policies and practices through congregational alliances within Unitarian Universalism, through interfaith channels, and with secular entities; and
- Maximize the energy efficiency of congregational facilities by enrolling in the EPA's Energy Star for Congregations Program.

Denominational Affairs

We call upon our denominational leaders to provide:

- Leadership, by calling upon the major political parties to develop energy and climate change policies and to make them central topics of debate in state, congressional, and presidential elections;
- Education, by providing spiritual, educational, and technical resources for congregational and individual responses;
- Justice, by seeking opportunities for public witness for environmental justice, including joining interfaith and public events promoting a just response to climate change;
- Sustainable practices, by exploring the options for performing environmental audits of all UUA properties and for modeling appropriate management and purchasing practices;
- Sustainable investing, by exploring the potential for using the ownership rights of the denomination's financial resources to positively address the global warming/climate change crisis;
- Support, by assisting congregations in evaluating and addressing the risks and challenges they face as a result of global warming/climate change;
- Recognition of congregational action, by encouraging, honoring, and publicizing the work of UU congregations, including those that achieve Green Sanctuary accreditation; and
- Ministry, by recognizing and supporting the need for UU leaders to help others understand the urgency and severity of addressing global warming/climate change, the resulting potential for despair, and places to find hope for the future.

Advocacy Goals

- Full compliance with the United Nations Framework Convention on Climate Change, with the understanding that because human activity is affecting global climate change, it follows that the greater our total population the greater the impact;
- Ratification of and compliance with the Kyoto Protocol;
- Funding for research and development of renewable energy resources and energy-efficient technologies that includes a shift of federal subsidies from fossil fuel industries to renewable energy technologies and improved energy efficiency;
- Funding of regional, national, and international programs to assist in mitigating the effects of global warming/climate change;
- Safe and responsible development of power sources with low greenhouse gas emissions;

- Policies and practices that reduce greenhouse gas emissions and increase forestation and other forms of carbon dioxide sequestration;
- Funding for development of energy-efficient mass transit and encouragement of its widespread use;
- Global warming/climate change impact studies (including physical, social, and economic effects) to be conducted by local and regional governments, with the findings to be incorporated into local government processes;
- Urban and regional planning designed to reduce energy consumption;
- Access to family planning services in the United States and around the world;
- Significantly strengthened Corporate Average Fuel Efficiency (CAFE) standards for automobiles and light trucks;
- National greenhouse gas emissions reduction targets of 10 percent below current levels by 2015, 20 percent by 2020, and 60 percent by 2030;
- United States policy that takes a leadership role in future global efforts to reduce greenhouse gas emissions and mitigate the negative impacts of global warming/climate change;
- Monitor, propose, and support legislation at the local and state level related to global warming/climate change and opportunities to reduce emissions; and
- Provide information on legislative advocacy opportunities to members of the congregation.

Given our human capacity to reflect and act upon our own lives as well as the condition of the world, we accept with humility and determination our responsibility to remedy and mitigate global warming/climate change through innovation, cooperation, and self-discipline. We undertake this work for the preservation of life on Earth.

THE SCIENCE BEHIND THE THREAT OF GLOBAL WARMING/CLIMATE CHANGE

A Resource of the Unitarian Universalist Ministry for Earth, PO Box 11, Lyme, NH 03768
<http://www.uuministryforearth.org>

June 21, 2006 - Last edited July 26, 2006

This document describes the science behind the **Threat of Global Warming/Climate Change Statement of Conscience** (http://www.uua.org/csw/SOCFinal06_GW.pdf) adopted by the Unitarian Universalist Association of Congregations at their General Assembly meeting in St. Louis in June 2006.

The Presidents of the National Academies of Science of the United States, of all of the G8 countries, and of the three largest developing countries (Brazil, China and India), issued this joint statement in June 2005: *“There is now strong evidence that significant global warming is occurring. The evidence comes from direct measurements of rising surface air temperatures and subsurface ocean temperatures and from phenomena such as increases in average global sea levels, retreating glaciers, and changes to many physical and biological systems. This warming has already led to changes in Earth’s climate.”*¹ This statement indicates the solid scientific consensus that now exists. The degree of consensus was indicated earlier by a paper, **The Scientific Consensus on Climate Change**, by Dr. Naomi Oreskes, a professor of the history of science at UC, San Diego, in which she analyzed ten years of articles on climate change in the scientific literature. Contrary to claims by some that there is a lot of scientific uncertainty, she found that there were no papers out of nearly 1000 in peer-reviewed journals that disagreed with the scientific consensus that Earth’s climate is changing as a result of human activities that are increasing the atmospheric concentrations of greenhouse gases (GHGs), especially carbon dioxide (CO₂).²

Earth’s climate has varied considerably over time. This variability is a response to climate forcing factors that include: variability in solar radiation intensity, changes in Earth’s orbit, changes in land surface, volcanic activity, and the concentrations of greenhouse gases (GHGs). Over most of Earth’s history, such factors have been exclusively natural; however, particularly since the Industrial Revolution, human activities--primarily the burning of fossil fuels (coal, oil, and natural gas), and deforestation--have had an increasing influence on the global climate system. Since 1800 the atmospheric concentration of CO₂ has increased 30%, and average surface air temperature has risen approximately 1.4° F as a result of the enhanced greenhouse effect of this and other GHGs (water vapor, methane, nitrous oxide, troposphere ozone and CFCs (chlorofluorocarbons)). The concentration of CO₂ is now greater than at any time in the last 740,000 years and may reach a level not seen for 55 million years.³

Once emitted, CO₂ remains in the atmosphere for a long time. The mean lifetime of anthropogenic CO₂ is over 30,000 years.⁴ (a) If all emissions from fossil fuels could be stopped immediately, the amount of CO₂ already in the atmosphere would result in continuing climate changes for hundreds of years. Earth’s temperature was projected in 2001 to warm by from 2.5 to 10.4° F in this century unless major reductions in greenhouse gas emissions are made (60-80% below 1990 levels).⁵ The upper limit of temperature rise this century has recently been revised upward by nearly 3-4° F because of the realization that the 2001 estimate underestimated the importance of feedback effects. (Warming causes increased GHG emissions from land and sea.)⁶

The idea that some gases in the atmosphere could make the Earth’s surface temperature considerably warmer than it would otherwise be had been around for a long time. In 1859 John

Tyndall, an Irish physicist, built an apparatus (a ratio spectrophotometer) that allowed him to measure the fraction of light of different wavelengths transmitted or absorbed by various gases at different pressures.⁷ He found that nitrogen and oxygen, which make up most of Earth's atmosphere, are transparent to both visible light and longer wavelength (infrared or IR) radiation, while others--like water vapor, CO₂ and methane, which we now call greenhouse gases—are also transparent in the visible but are partially absorbed and heated by infrared radiation, with more absorption as the concentration was increased. In order to have the Earth at a steady average temperature, the rate of absorption of incoming energy from solar radiation (insolation), which is mostly in the visible, must be equal to the rate of outgoing terrestrial radiation, which is mostly in the IR. He realized that Earth's surface temperature would increase if the concentrations of GHGs increased, but didn't attempt to make a quantitative estimate. That came from Svante Arrhenius, a Swedish chemist, who did many hours of tedious hand calculations during the year of 1894-1895 to estimate the effects on Earth's average temperature of halving or doubling the atmospheric concentration of CO₂.⁸ While his model was primitive by modern standards, his estimate of a global average temperature increase of 9-11° F is not far from the current best estimates.

Water vapor is actually responsible for more than half of the greenhouse effect.⁹ It behaves differently than the other trace GHGs, in that its atmospheric lifetime is only a few days, compared to much longer times for the others. Water is also unique in being present in all three phases (solid, liquid and gas) on the Earth's surface. The vapor pressure of water is strongly temperature dependent, leading to an important positive feedback known as the "water vapor feedback."¹⁰ The importance of water vapor as a GHG can be seen in the large difference between day and nighttime temperatures in a desert, where the humidity is very low. As soon as the sun goes down the heat is rapidly radiated back into space.

The results of global warming are already being felt:

- 2005 had the highest global average temperature in the last 1000 years.¹¹
- Antarctic ice shelves that have been in existence for at least 12,000 years as floating ice (and 125,000 years as ice grounded on the ocean floor) have disappeared completely¹²
- Mountain glaciers worldwide are in retreat, and the rates of melting are increasing; at least one quarter will be gone by mid-century.¹³ Melting of these glaciers provides water for large numbers of people all over the world-- in the U.S. from the Rockies and Sierra Nevada, in South America from the Andes, and Asia from the Himalayas--300 million people in China alone.¹⁴
- Sea levels have risen about six inches during the past century; during the next, they may rise three feet or more, inundating large areas and resulting in unprecedented numbers of refugees.¹⁵ An estimated 100-200 million people live within three feet of the present sea level. Bangladesh would lose 17% of its land, including half of its most productive rice-growing area.¹⁶
- Indigenous Arctic cultures, polar bears, and large marine mammals dependent on floating sea ice have been affected by the ~8% per decade decline in Arctic sea ice since 1979.¹⁷ The summer of 2005 saw the smallest North Polar ice cap ever.¹⁸ Arctic winter sea ice reached an all-time low in March 2006, down some 300,000 square kilometers compared to 2005. If the cycle continues, the Arctic Ocean could lose all of its ice by 2030, much earlier than expected.¹⁹
- The thickness of the North Polar cap, measured by U.S. nuclear submarines, has decreased by about 40% during the past 40 years.
- Warmer oceans and other human-caused stresses have already destroyed 20% of coral reefs; most reefs are at risk of dying by mid-century.²⁰
- Increasing ocean acidity threatens coral reefs, mussels and scallops, and phytoplankton at the

base of the oceanic food chain.²¹ Nearly half of the CO₂ released by burning fossil fuels dissolves in the oceans, forming carbonic acid, and making the water more acidic; enough CO₂ will eventually dissolve calcium carbonate, the major ingredient of coral skeletons and sea shells. Protein in the form of fish from the sea—a major protein source for millions of Earth's people—is likely to be severely reduced in coming decades by the growing acidification of the world's oceans.²²

- Yields of major grain crops (corn, wheat and rice) are temperature sensitive. As temperatures increase, yields increase up to a point and then decline. A rule of thumb among crop ecologists is that a 1°C (1.8°F) temperature rise above the norm reduces grain yields by 10%. Global warming will make it increasingly difficult to feed Earth's growing population.²³
- As temperatures increase, so do rates of evaporation and precipitation, leading to more severe droughts in some areas and floods in others.
- The area of Earth's surface experiencing serious drought has more than doubled since the 1970s, in accordance with the predictions of global climate models.²⁴
- Insect and mammalian species across the northern hemisphere are migrating to cooler climates.²⁵ In the case of disease vectors like mosquitoes and ticks, this means spreading of diseases away from the Equator and to higher elevations.
- Globally, more people are victims of heat stress mortality, and the numbers of people exposed to vector-borne (e.g., malaria and dengue) and water-borne (e.g., cholera) diseases are rising. The World Health Organization estimates that at least 150,000 premature deaths each year are attributable to the effects of climate disruption (equivalent to a World Trade Center a week) and that the numbers will rise substantially over the next 25 years.²⁶ Climate change has many negative effects on human health, some of them quite surprising.²⁷
- Tropical storm intensity and duration are linked to rising sea-surface temperatures. The destructive power of cyclonic storms has doubled over the past 30 years.²⁸ 2005 set new records for the most powerful hurricane (Wilma), the most destructive (Katrina), the most northeasterly (Vince), and the latest in a hurricane season (Zeta).
- Changes in climate are damaging habitats and disrupting ecosystems, and are expected to cause the loss of species that are unable to migrate or adapt. The first comprehensive assessment of extinction risk from global warming found that more than a million species—nearly a quarter of the plants and animals in the six ecosystems studied—could be extinct or on their way to extinction by 2050, if global warming is not curtailed.²⁹
- Financial losses due to extreme weather events increased from about \$4 billion/year in 1950 to about \$40 billion/year by the year 2000, in inflation adjusted dollars.³⁰ Losses are expected to become much larger; they were well over \$100 billion in 2005—twice what they were in 2004, which had record losses because of hurricane damage from four Florida hurricanes—because of Hurricane Katrina alone, which destroyed over 100,000 homes in New Orleans and the Gulf Coast. The increasing storm damage, disease, mass migration, starvation, and conflict, if we do not respond in time, will be beyond anything we have ever experienced.

Earth's climate system has sensitive thresholds, where sudden and extreme changes can occur, as shown by the paleoclimate record. Of great concern is the possibility that abrupt, irreversible climate changes with catastrophic consequences may occur once thresholds in temperature are reached. Examples are:

- The disruption of the Gulf Stream, resulting in sudden cooling of the climate of northern Europe and the Northeastern United States, even as Earth's average temperature continues to rise;³¹ this happened coming out of the last ice age, in a period called The Younger Dryas, when northern Europe fell back into an ice age for more than 1000 years.³²

- The rapid melting of the Greenland ice sheet, which is nearly two miles high in places. Total melting could raise the global sea level over 20 feet.³³ The combined melting of Greenland and the West Antarctic ice sheet could raise the sea levels by 43 feet.³⁴ Very recently it has been found the Greenland ice sheet is melting much faster than predicted; instead of the previously accepted 3 foot rise in sea level this century, there could be a 23 foot rise by 2100, leading to vast flooding of coastal areas throughout the world.
- A massive and self-perpetuating release of carbon dioxide and methane from thawing of peat bogs in Siberia, long frozen in permafrost,³⁵ and a self-perpetuating runaway temperature increase which could get out of our control.
- Fifty five million years ago there was an extinction event on land and sea called the Paleocene-Eocene Thermal Maximum (PETM),³⁶ attributed to the rapid release of 2000 Gt (a Gt or gigaton is a billion metric tons) of carbon in the form of methane. (For comparison, the atmosphere now contains about 720 Gt of carbon in the form of CO₂). Oxidation of the methane to CO₂ and its absorption by the ocean would make the ocean acidic enough to account for the disappearance of calcium carbonate from the ocean, as seen in the change in sediments on the sea floor. The methane probably came from the thermal decomposition of methane hydrate, which is present in vast quantities on the sea floor and can decompose to release methane gas if the temperature on the sea floor rises by 2-3° C (ca. 4-6° F).³⁷ Estimates of the amount of methane now frozen in hydrates range from 1000 to 22,000 Gt, with many experts putting the figure at about 10,000 Gt – 5X the amount released to account for the PETM! Burning enough fossil fuel to destabilize the methane hydrate could set the time bomb off. This is probably the greatest threat to the continuation of human life on the planet.

Proven technologies capable of stopping the increase in carbon emissions for the next 50 years, over which time they would otherwise double (based on current growth rates), are already available. Drs. Pacala and Socolow, at Princeton University, list 15 that are ready to go, including: more efficient vehicles, more energy-efficient buildings, nuclear power, CO₂ capture and storage from coal-fired power plants, photovoltaic (pv) electricity, wind power, and biomass fuel.³⁸ Though none of these is capable of stabilizing emissions by itself (no magic bullet), a combination of them can.

The Pew Center on Global Climate Change has released a comprehensive plan to reduce greenhouse gas emissions in the United States. The *Agenda for Climate Action* identifies both broad and specific policies, and calls for a combination of technology and policy in six key areas: (1) science and technology, (2) market-based programs, (3) sectoral emissions, (4) energy production and use, (5) adaptation, and (6) international engagement. Within these six areas, the Agenda outlines fifteen specific recommendations that should be started now.³⁹

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