



A PRIMER ON

# SUSTAINABILITY

INTERCOMMUNITY PEACE & JUSTICE CENTER

# INDEX

- Fostering Sustainability.....3
- Brief History of Sustainability.....4-5
- Glossary of Terms.....6-7
- Sustainability Matrix.....8-9
- Our Energy Choices.....10
- Water: Continuum of Action.....11
- Theological and Ethical Perspectives.....12
- Videos & Movies.....13
- Resources on Sustainability.....14
- Sustainable Development Goals.....15
- Laudato Si'* Supplement.....Insert





# FOSTERING SUSTAINABILITY

“The difference between **what we do** and **what we are capable of doing** would suffice to solve most of the world's problems.” –MOHANDAS K. GANDHI

## SUSTAINABILITY PRINCIPLES

- ◆ Acknowledge interconnections at all levels
- ◆ Acknowledge that there are limits to growth, we need to limit human's scale to Earth's capacity
- ◆ Create community
- ◆ Remember prevention is better than a cure
- ◆ Work to improve intergenerational equity
- ◆ Respect and encourage diversity in nature and culture
- ◆ Support re-localization with global connectedness
- ◆ Ensure technology is increasing efficiency and addressing global equity, not simply increasing output
- ◆ Support development of renewable energy
- ◆ Move from consumerism to quality-of-life goals
- ◆ Re-value “The Commons”
- ◆ Be hopeful in an uncertain world

## HOW TO MAKE A DIFFERENCE IN FOSTERING SUSTAINABLE BEHAVIOR

- ◆ Select carefully the activity to engage or behavior we want to encourage
- ◆ Identify the barriers and benefits associated with the activity or behavior (e.g., there is a rebate or free showerhead replacements available, but we don't have the tools or know-how to change the showerheads)
- ◆ Start with simple and affordable; something everyone can participate in; make activity convenient
- ◆ Consider the impact of activity
- ◆ Written and public commitments tend to be more effective than oral in terms of impact
- ◆ Share best practices and make visible the community engagements
- ◆ Create prompts to engage a particular activity
- ◆ Create Incentives
- ◆ Communicate vividly, use positive messaging
- ◆ Pilot a project or create a trial period for a particular activity
- ◆ Provide personal and positive feedback
- ◆ Share stories of impact and success

## BEING A CHANGE AGENT

- ◆ Be a contemplative in action
- ◆ Ground your action in a spirituality of justice
- ◆ Focus on an issue or challenge you care about
- ◆ Be bold but realistic
- ◆ Do the research and know the issue
- ◆ Network/join movements and actions already in progress
- ◆ Develop relationships and community around the issue being addressed
- ◆ Find a role that fits your gifts and interests
- ◆ Develop oral and written skills on the issue
- ◆ Commit to teamwork
- ◆ Learn from mistakes and keep going
- ◆ Celebrate successes little and big
- ◆ Keep a balance and avoid burn-out

## CHARACTERISTICS OF RESILIENT SYSTEMS

- ◆ Incorporate a high degree of diversity: create functional diversity (monocrops or monoculture can create vulnerability)
- ◆ Support circular, modular models: This enables systems to work even if a part of it fails (avoid hierarchical and centralized structures)
- ◆ Create monitoring and feedback loops \*
- ◆ Include time for reflection and correction
- ◆ Keep a balance between conservation and innovation
- ◆ Provide for community engagement in strategies

### \*Katrina Story

*When most storm-affected communities were abandoned, the Vietnamese community in the area of Versailles set up its own Community Development Corporation. Volunteers with relevant skills and experience began immediate reconstruction. The community relied on the support from the wider Vietnamese community.*



# BRIEF HISTORY OF SUSTAINABILITY

## EARLY

**1798**—Thomas Malthus, political science and economics scholar, begins to write about the population outstripping resources and that some of our human activities might not be sustainable (Malthusian cycle)

**1845**—Henry David Thoreau reflects from his cabin on Walden Pond, about nature and community

**1846**—George Perkins Marsh, a US diplomat and historian, writes about the destructive impacts of human civilization on the environment

**1892**—John Muir, a naturalist founded the Sierra Club

**1908**—Svante Arrhenius, a Swedish chemist argued that industrial activity would lead to climate change

## EARLY CONSERVATION

**1860**—Ernst Haeckel, a German biologist, first uses the term “ecology” to identify the relationship of organisms to the environment

**1900**—John Lacey sponsors the Lacey Act of 1900 to protect birds that were being killed to provide plumage for women’s hats in the late 19th century

**1903**—President Theodore Roosevelt, a strong conservationist, established the first National Wildlife Refuge at Pelican Island in Florida

## CONSERVATION TO ECOLOGY

*Scientists shift from the perspective of viewing an isolated crop or element as a resource to manage to an ecological understanding of relationships and connections in the larger environment.*

**1927**—Charles Elton, a zoologist who describes the food web and food pyramid and demonstrates the importance of the plants and bacteria at the bottom of the pyramid

**1935**—Arthur Tansley, a British ecologist who first introduced the term ecosystems

## BEGINNING OF THE ENVIRONMENT MOVEMENT AND GLOBAL EXPANSION

**1962**—Rachel Carson, biologist and staff at the US Fish and Wildlife Services writes *Silent Spring*, documenting the effects of pesticides on the environment

**1962**—Cesar Chavez and Dolores Huerta of the United Farm Workers of America made farmer work a protection from pesticides a priority

**1968**—Apollo 8 crew takes “Earthrise” photo and this first whole Earth view becomes significant in our understanding of living on a finite planet

**1970**—Denis Hayes, organized the first Earth Day and a number of environmental organizations began to emerge, e.g., World Watch Institute and Green Peace

**1972**—Apollo 17 provides the picture of Earth as the “Blue Marble” that reinforces for us a sense of a vulnerable planet in the vast expanse of space

**1972**—UN Environmental Conference on the Environment in Stockholm creates the United Nations Environmental Program (UNEP)

**1973**—E. F. Schumacher, an economist wrote *Small is Beautiful: Economics as if People Mattered*

**1983**—UN created the World Commission on Environment and Development (WCED)

**1985**—S.T.A. Pickett and P. S. White, ecologists, describe ecosystems as dynamic rather than homogeneous stable systems (chaos theory)

**1987**—Ben Chavis coins the phrase “environmental racism” in reference to the PCB (polychlorinated biphenyl) disposal site in Warren County, North Carolina, a mostly African American neighborhood

**1992**—UN Earth Summit, Rio de Janeiro, Brazil, generated a UN Framework Convention on Climate Change

**1997**—Kyoto Protocol, a treaty to reduce greenhouse gas emissions that entered into force in 2005 (US has not ratified and Canada withdrew)

## MODERN TRENDS

**1980s**—Bioregionalism and the think global, act local movement spawns an increase in sustainability organizations, programs and initiatives

**1990s**—Concept of “Ecological Footprint” emerges from two Canadian scholars to measure human impact on and carrying capacity of our Earth

**2002**—William McDonough (architect) and Michael Braungart (chemist) write *Cradle to Cradle: Remaking the Way We Make Things*, suggesting we imitate nature’s systems



# BRIEF HISTORY OF SUSTAINABILITY

## Highlights of Key Legislation

(not a comprehensive legislative list)

### CANADIAN LEGISLATION

**1921**—The Lake of the Woods Control Board Act defines the purpose and powers of the Board to regulate water levels in the Ontario, Manitoba and United States water systems

**1971**—The Department of the Environment Act established Environment Canada as a department responsible for preserving and enhancing the quality of the natural environment

**1985**—The Canada Water Act provides for the management of the water resources of Canada

**1985**—An International River Improvements Act (IRIA) respects the construction, operation and maintenance of international river improvements

**1985**—The Fisheries Act plays a major role in conservation and protection of fish habitat essential to sustaining freshwater and marine fish species

**1985**—The Canada Wildlife Act allows for the conservation and study of wildlife and the creation of National Wildlife Areas

**1992**—The Wild Animal and Plant Protection and Regulation of International and Interprovincial Trade Act respects the protection of certain species of wild animals and plants and the regulation of international and interprovincial trade in those species

**1994**—The Species at Risk Act implemented a Convention for the protection of migratory birds in Canada and the United States

**2000**—The Canadian Environmental Protection Act, 1999 (CEPA 1999) is a broader legislative framework aimed at preventing pollution and protecting the environment and human health

**2001**—The Canada Foundation for Sustainable Development Technology Act funds the development of technologies that provide solutions to issues related to climate change, clean air, water and soil quality

**2003**—Antarctic Environmental Protection Act (AEPA) protects the Antarctic environment from potential negative environmental effects as a result of Canadian activities in the region

**2008**—The Federal Sustainable Development Act (FSDA), assigns the Minister of the Environment to develop the Federal Sustainable Development Strategy

**2009**—The Environmental Enforcement Act (EEA) amends nine existing acts to ensure more effective enforcement of the laws that protect Canada's national parks, air, land, water, and wildlife

### US LEGISLATION

**1970**—*National Environmental Policy Act*, signed by President Richard Nixon and called the "Magna Carta of Environmental Law," led to the creation of the Environmental Protection Agency (EPA)

**1970**—*Clean Air Act*, requiring the EPA to publish hazardous air pollutants and set emissions standards

**1972**—*Water Pollution Control Act*, requiring navigable waters to be "fishable and swimmable" by 1983

**1972**—DDT was banned

**1973**—*Endangered Species Act*, advocates for an ecosystem approach to protecting the environment

**1974**—*Safe Drinking Water Act*, establishing standards for contaminants in public waters (expanded to 1977 Clean Water Act)

**1976**—*Toxics Substances Control Act*

**1980**—Passage of the Superfund to clean up hazardous waste from disasters like Hanford, etc.

**1990**—*Clean Air Act*

**1993**—Healthy Forest Initiative



# SUSTAINABILITY GLOSSARY

**Adaptation** refers to an adjustment or preparation of natural or human systems to a new or changing environment which moderates harm or exploits beneficial opportunities.

**Addictive consumption** is a widely used term that was given particular meaning by one-time chemical engineer John Ehrenfeld, who retired from academic life in 2000 and went on to become the executive director of the International Society for Industrial Ecology.

**Anthropogenic**—Made by people or resulting from human activities. Usually used in the context of emissions that are produced as a result of human activities.

**Atmosphere** refers to the layer of gases that surround the planet.

**Aquifer** is a large deposit of underground water.

**Biosphere** is the term used to refer to the zone surrounding the planet in which living organisms can thrive. It extends from just below the surface of the planet to the part of the atmosphere which contains sufficient oxygen to sustain life.

**Cap and Trade System** refers to buying and selling of permits to pollute. Also known as Emissions Trading.

**Climate Change** refers to any significant change in the measures of climate lasting for an extended period of time. In other words, climate change includes major changes in temperature, precipitation, or wind patterns, among others, that occur over several decades or longer.

**Collaborative consumption** refers to efforts to increase collaboration or cooperation in the purchase and consumption of goods and services; most commonly driven by the view that individual consumption is often wasteful and environmentally damaging.

**Commodification** is the processes which turn goods and services into 'commodities' for exchange within a market economy.

**The Commons** refers to resources belonging to or affecting the whole of a community.

**Delocalization** refers to the suggestion that globalization has gone too far and that people should seek to satisfy their needs and aspirations by turning more to the local context.

**Desertification** refers to a form of land degradation in which an area loses its natural reserves of water and existing forms of vegetation and wildlife.

**Ecological Economics** can be thought of "full world" economics joining ecology and economics into one interconnected whole.

**Emergence** the evolution of complex systems out of a multiplicity of interactions has intrigued philosophers since the time of Aristotle; however, its current meaning was captured well by economist Jeffrey Goldstein in 1999: "the arising of novel and coherent structures, patterns and properties during the process of self-organization in complex systems'."

**Energy audits** refer to surveys and analysis of energy flows for particular buildings and they are usually conducted in order to reduce energy supply requirements. They became popular after the global oil crisis of 1973.

**Environmental justice** is a term that emerged in the USA in the early 1980s to suggest a need to ensure that all sectors of society can have access to healthy natural environments.

**Ethical consumption** refers to values-based approach to purchasing and consumption which puts the onus on the consumer to exercise his or her choice wisely.

**Externality** is a cost that is external to the entity creating the damage. For example, the cost of climate change is not included in the market price of petroleum.

**Failed States Index** is an annually published total score (ranging from 1-120) that examines 12 social, economic and political indicators within each of the 177 countries that measure "their vulnerability to violent internal conflict and societal deterioration." Countries with a score from 1–30 are "Sustainable", 30–60 are "Moderate," 60–90 are "Warning," >90 are placed in "Alert".





# SUSTAINABILITY GLOSSARY

**Food miles** refers to the distance travelled by food items or components from where they originated as agricultural products to where they are consumed as food products.

**Fracking** refers to the process of injecting water under high pressure into deep layers of shale rock in order to create fissures to release natural gas embedded in the rock into collecting wells.

**Functional diversity** is a term used by ecologists, which refers to the level of diversity required by a biological community to make it resilient to disturbance or capable of change and adaptation.

**Greenhouse gases** refers to a group of gases that have the ability to absorb and re-radiate solar energy. They include water vapor, ozone, carbon dioxide, methane and nitrous oxide, with the latter three increasing in the upper atmosphere concentrations as a result of human activity.

**Hydrosphere** refers to the layer below and above the surface of the planet where bodies of water are found.

**Hypoxia** is a general term for low levels of oxygen; it is being used increasingly to refer to low levels of oxygen in bodies of water.

**Impact Investing** refers to investments made in companies, organizations, and funds with the intention to generate a measurable, beneficial social or environmental impact alongside a financial return.

**Intergovernmental Panel on Climate Change (IPCC)** was formed in 1988 by two UN organizations—the World Meteorological Organization and the United Nations Environment Programme—to collate information from scientific studies of human-induced climate change. Its first report was published in 1990.

**Lithosphere** refers to the outer crust of the rocky planet.

**Millennium Development Goals (MDG)** are eight goals that were adopted at a special UN Millennium Summit held in New York in May 2000.

**Mitigation**—A human intervention to reduce the human impact on the climate system; it includes strategies to reduce greenhouse gas sources and emissions and enhance greenhouse gas sinks.

**Monocrop agriculture** refers to the practice of growing a single crop in a large area, year after year.

**Offset** is a reduction in emissions created by one entity and purchased by another entity.

**Permaculture** refers to a holistic approach to the design of food producing gardens which aims to work with, rather than against, natural systems and flows. The term was coined by Australians David Holmgren and Bill Mollison in 1978; permaculture associations run training courses and offer certification for trained practitioners in many countries.

**Renewable energy** relates to using sources of energy that are in unlimited supply—such as solar power or wind energy—and which do not result in the emission of greenhouse gases.

**Resilience** is the capacity of a system to absorb disturbance and still maintain its fundamental function and structure, whether that system is an ecosystem or a city.

**Smart growth developments** are compact, walkable, bikable, and transit-oriented, with a mix of uses, housing types and affordability levels.

**Sustainable Development Goals (SDG) 2030** The United Nations new set of global goals to end poverty, protect the planet and ensure prosperity for all.

**Sustainability** refers to the systems and processes that are able to operate and persist on their own over long periods of time

**Tar sands** (also known as “oil sand”) refers to loose sand that contains bitumen, which is a viscous form of petroleum.

**Transition Towns** refers to international network that aims to make particular towns or settlements much more sufficient in terms of energy use and food and water consumption.

**Water table** refers to the boundary between dry ground and ground that is saturated with water that has penetrated into the ground.

	FOOD	WATER	ENERGY
Personal	<ul style="list-style-type: none"> <li>◆ Eat lower down on the food chain</li> <li>◆ Eat local food</li> <li>◆ Eat seasonal food</li> <li>◆ Join a community garden</li> <li>◆ Educate yourself on fishing/overfishing practices</li> </ul>	<ul style="list-style-type: none"> <li>◆ Turn off water when brushing teeth and doing dishes</li> <li>◆ No bottled water</li> <li>◆ Read labels and get less toxic cleaning products</li> </ul>	<ul style="list-style-type: none"> <li>◆ Use LED bulbs</li> <li>◆ Check calibration of your thermostat</li> <li>◆ Power down/unplug electronic devices (use sleep mode)</li> <li>◆ Use timer/motion control lighting</li> <li>◆ Turn off lights</li> </ul>
Community/Household	<ul style="list-style-type: none"> <li>◆ Consider joining a CSA: Community Supported Agriculture</li> <li>◆ Look into biointensive gardening methods</li> <li>◆ Increase the number of meatless meals you share</li> </ul>	<ul style="list-style-type: none"> <li>◆ Limit watering</li> <li>◆ Greenscape – choose native and drought resistant plants, leave leaves where they fall</li> <li>◆ Dual-flush toilets</li> <li>◆ No fertilizer</li> <li>◆ Green household products</li> <li>◆ Low-flow showerheads</li> <li>◆ Fix leaks</li> <li>◆ Become a non-toxic home</li> <li>◆ Join Community Supported Agriculture (CSA)</li> </ul>	<ul style="list-style-type: none"> <li>◆ Household energy audit</li> <li>◆ Energy efficient appliances</li> <li>◆ Get programmable thermostats</li> <li>◆ Consider solar panel installation</li> <li>◆ Switch from oil to natural gas as a bridging step</li> </ul>
Institutions	<ul style="list-style-type: none"> <li>◆ Engage students in equitable, sustainable gardening</li> <li>◆ Minimize pavements and plant fruit trees around campus</li> <li>◆ Designate vegetable garden space</li> <li>◆ Consider rooftop gardening</li> </ul>	<ul style="list-style-type: none"> <li>◆ Reduce your water use</li> <li>◆ Harvest rainwater and use for non-potable purposes; purify for potable uses</li> <li>◆ Improve cooling systems</li> <li>◆ Separate out gray water for flushing toilets and yard water</li> <li>◆ Treat your own waste water (Biosystems)</li> <li>◆ Use root irrigation systems</li> </ul>	<ul style="list-style-type: none"> <li>◆ Build on brown fields using green building design</li> <li>◆ Low impact development</li> <li>◆ Solar panels (generate more energy than used)</li> <li>◆ Take advantage of natural ventilation for cooling</li> <li>◆ Save money and energy by generating power from harvesting heat, a waste by-product (e.g., refrigerator)</li> </ul>
Policy	<ul style="list-style-type: none"> <li>◆ Incentivize sustainable local agriculture</li> <li>◆ Support small and mid-sized farmers to decrease their vulnerability to natural disasters</li> <li>◆ Advocate for community gardens</li> <li>◆ Support a change in our US Food Aid policy</li> <li>◆ Ensure that food assistance programs are funded in your state</li> <li>◆ Increase food security by disincentivizing the diversion of corn for ethanol production</li> </ul>	<ul style="list-style-type: none"> <li>◆ Use Biosystems to treat waste water and storm water</li> <li>◆ Provide incentive for improved/green manufacturing processes</li> <li>◆ Subsidize low-impact development (rain gardens, porous pavements, etc.)</li> <li>◆ Subsidize root irrigation</li> </ul>	<ul style="list-style-type: none"> <li>◆ Support sustainable, responsible impact investing</li> <li>◆ Advocate for subsidies to convert to combined heat and power cooling/heating systems</li> <li>◆ Invest in solar thermal panels in desert areas</li> <li>◆ Advocate for tax incentives for renewable energy technology</li> <li>◆ As a bridging technology, advocate for the production of ethanol away from corn and to woody plants and switchgrass</li> </ul>



	WASTE	EQUITY	TRANSPORTATION
Personal	<ul style="list-style-type: none"> <li>◆ Use small kitchen compost bin</li> <li>◆ Volunteer simplicity (reduce)</li> <li>◆ Recycle and reuse</li> <li>◆ Reusable bags</li> <li>◆ Eat lower on the food chain</li> <li>◆ Buy blemished/bruised fruit</li> </ul>	<ul style="list-style-type: none"> <li>◆ Buy Fairtrade</li> <li>◆ Practice voluntary simplicity</li> <li>◆ Recycle and reuse products</li> <li>◆ Read and act on the intersection of issues on poverty and climate change</li> </ul>	<ul style="list-style-type: none"> <li>◆ Walk</li> <li>◆ Carpool/vanpool</li> <li>◆ Use alternative transportation</li> <li>◆ Use farmer markets and local food</li> <li>◆ Maintain your vehicle</li> <li>◆ Avoid night flights &amp; minimize winter flights</li> </ul>
Community/Household	<ul style="list-style-type: none"> <li>◆ Compost</li> <li>◆ Purchase in bulk or less packaged products</li> <li>◆ Cut the use of paper products-napkins</li> <li>◆ Eliminate mercury in home (in lamps, thermostats, wash machines, light switches)</li> <li>◆ Buy non-mercury alternatives and dispose properly</li> <li>◆ Plant trees</li> <li>◆ Plant/vegetable swales</li> </ul>	<ul style="list-style-type: none"> <li>◆ Educate yourself on the Index of Sustainable Economic Welfare (ISEW) and Genuine Progress Indicator (GPI) as substitutes for Gross Domestic Product (GDP) measure of our economy</li> <li>◆ Pay a liveable wage for house maintenance and projects</li> </ul>	<ul style="list-style-type: none"> <li>◆ Combine trips</li> <li>◆ Use fuel efficient vehicles</li> <li>◆ Telecommute for meetings</li> </ul>
Institutions	<ul style="list-style-type: none"> <li>◆ Buy recycled paper and paper products</li> <li>◆ Read, save and use electronic documents</li> <li>◆ Use worm bin</li> <li>◆ Institutional wide education, policy and practice for waste reduction</li> </ul>	<ul style="list-style-type: none"> <li>◆ Institute equitable pay throughout supply chains</li> <li>◆ Minimize water waste, CO2 emissions, ground water pollution</li> <li>◆ Reduce non-green resources, packaging and products in your manufacturing processes</li> <li>◆ Consider creative ways of tithing to support justice and systemic change</li> </ul>	<ul style="list-style-type: none"> <li>◆ Decrease parking spaces and increase parking fees</li> <li>◆ Rebates for not using parking spots</li> <li>◆ Make emergency rides home readily available</li> </ul>
Policy	<ul style="list-style-type: none"> <li>◆ Use methane from landfills for power plants</li> <li>◆ Plant switchgrass and poplar trees on banks downstream from waste</li> <li>◆ Convert brownfields to mixed-use neighborhoods</li> </ul>	<ul style="list-style-type: none"> <li>◆ Advocate for smart mixed use and equitable housing</li> <li>◆ Use shareholder advocacy to vote proxies on ecological sustainability and economic equity</li> <li>◆ Institute a cap and trade system</li> <li>◆ Advocate for pricing to reflect the true cost of products</li> <li>◆ Tax pollution, ground water consumption and carbon dioxide emissions</li> </ul>	<ul style="list-style-type: none"> <li>◆ Advocate for lightrail and street car systems; subsidize green cars</li> <li>◆ Advocate for smart growth development with walkable, transit-oriented, mixed-use urban planning</li> <li>◆ Incentivize local and urban food growing</li> <li>◆ Incentivize car sharing</li> </ul>



# OUR ENERGY CHOICES

Transportation	Housing	Energy Use
Take the bus or ride your bicycle to work or school one day or more a week.	Turn off the lights, repair air and water leaks and check the calibration of your thermostat.	Read <i>Green, Greener, Greenest</i> and/or other practical guide on eco-smart choices.
Organize a carpool with colleagues, or carpool with friends for social activities and church.	Switch from incandescent lights to LEDs with motion sensor switches; and install solar motion sensor lights outdoors.	Eat less red meat. 1lb of meat uses 16x the fossil fuel and emits 24x the GHG than veggies and grains.
Invest in a green car. Visit <a href="http://www.fueleconomy.gov">www.fueleconomy.gov</a> to find out if you qualify for a tax credit.	Take a class or learn about solar technology <a href="https://solarliving.org">https://solarliving.org</a> Reduce your heating needs. <a href="http://www.homeenergysaver.lbl.gov">www.homeenergysaver.lbl.gov</a>	Plant low-water requiring, native trees and plants to capture CO2.
Buy locally to reduce transportation costs.	Buy Energy Star appliances, dual-flush toilets, low-flow showerheads.	Educate yourself on the pros/cons of biofuels, coal, and nuclear power.
Organize an "Alternative Transportation" presentation for your parish.	Reduce waste by reducing, reusing and recycling household items. <a href="http://www.earth911.org">www.earth911.org</a>	Join a volunteer utility program. See <a href="http://www.rnp.org">www.rnp.org</a> to sign up for green energy.
Avoid night flight and minimize winter/air travel. Promote green meetings, e.g., teleconferencing and carbon offsets.	Switch from oil to a natural gas heating system	Advocate for more power from clean energy. In desert-like locations, advocate for Solar Thermal Plants.
Actively support a regional mass transit proposal. Talk with neighbors about why you support it.	Invest in a solar-powered water heater, or install a solar panel at your church.	Advocate for combined heat and power systems for hotels, schools, government buildings and hospitals.
Become a board member of your city's Department of Transportation or regional transit solution.	Work for state legislation to ban the sale of incandescent bulbs.	Advocate for tax credit legislation for efficiency upgrades and solar installation.
Join a climate action group, e.g., <a href="http://www.stepitup2007.org">www.stepitup2007.org</a> <a href="http://www.coopamerica.org/programs/climate">www.coopamerica.org/programs/climate</a>	If building a new house, consider LEED (Leadership in Energy and Environmental Design) or Living building Challenge designs <a href="http://www.living-future.org/lbc">www.living-future.org/lbc</a>	Invest in environmentally responsible mutual funds; vote your proxies for renewable energy and to reduce greenhouse gas emissions.

Books, DVDs and other resources are available from IPJC • 206.223.1138 • [www.ipjc.org](http://www.ipjc.org) • [ipjc@ipjc.org](mailto:ipjc@ipjc.org)



# WATER: CONTINUUM OF ACTION

Awareness	Involvement	Leadership
Calculate your water footprint and compare with the average American. <a href="http://www.h2oconserve.org">www.h2oconserve.org</a>	Set a goal and begin water reduction in your home, work, or church. <a href="http://www.wateruseitwisely.com">www.wateruseitwisely.com</a>	Share water-saving tips in your church bulletin, business, and community newsletters.
Educate yourself about water quality in your area and threats to human and environmental health.	Volunteer with organizations that promote water quality and protection of aquatic ecosystems.	Distribute educational materials at a church or community fair.
Read and study church teachings related to human rights, care of creation and water.	Facilitate a faith community study group. <b>Resource:</b> <i>Climate Change: Our Call to Conversion: Four Session Process</i> with prayer, discussion, hope, and action. <a href="http://www.ipjc.org">www.ipjc.org</a>	Draft a corporate stand or social justice practice statement for your church.
Learn about the growing privatization of public water sources. <a href="http://www.ipjc.org/links/water.htm">www.ipjc.org/links/water.htm</a> <a href="http://www.foodandwaterwatch.org">www.foodandwaterwatch.org</a>	Organize a group viewing and discussion of <i>Flow: For Love of Water; Thirst; Water: Sacred &amp; Profane; Running Dry; American Southwest: Are We Running Dry?</i>	Rally support in your community to use tap water over bottled water and support public water systems. <a href="http://www.thinkoutsidethebottle.org">www.thinkoutsidethebottle.org</a>
Read <i>Blue Covenant: The Global Water Crisis and the Coming Battle for the Right to Water</i> , by Maude Barlow.	Start a book group discussion on what responsibilities corporations like Nestlé and Coca Cola have in ensuring public access to local water.	Organize public education/grassroots organizing on the intersection between private corporations and public water systems.
Understand the central connection women have with water as primary caregivers and household managers. <a href="http://www.un.org">www.un.org</a> ; <i>IPJC A Matter Of Spirit, Water Sustainability 2016</i> <a href="http://www.ipjc.org/journal">www.ipjc.org/journal</a>	Lead a study group on the Sustainable Development Goals, <a href="https://sustainabledevelopment.un.org">https://sustainabledevelopment.un.org</a> .	Publicize the recommendations for gender equality regarding water management and decision making with a news article or public service announcement.
Learn more about water conflict. <a href="http://www.worldwater.org">www.worldwater.org</a> <a href="http://pulitzercenter.org/downstream">pulitzercenter.org/downstream</a>	Organize a viewing of <i>River of War, River of Life: The Fate of the Nile</i> . <a href="http://www.unwater.org/worldwaterday">www.unwater.org/worldwaterday</a>	Use the 2016 UN World Water Day materials to increase the commitment to cooperation, not conflict.
Make a personal commitment to support organizations that promote water sanitation education, training, and access to clean water for the impoverished. <a href="http://www.water.org">www.water.org</a> , <a href="http://www.water1st.org">www.water1st.org</a> , <a href="http://www.1h20.org">www.1h20.org</a>	Hold a water forum. Invite speakers from water advocacy organizations. Collect signatures for the 31st Article in the Universal Declaration of Human Rights on water. <a href="http://www.article31.org">www.article31.org</a>	Work with organizations that empower local communities in water resource management.
Research current water laws and regulations. <a href="http://www.citizen.org">www.citizen.org</a> <a href="http://www.epa.gov">www.epa.gov</a>	Contact your state and federal legislators to address your concerns on water issues.	Advocate for water legislation that protects and sustains human and environmental health. <a href="http://www.worldwatercouncil.org">www.worldwatercouncil.org</a>

Books, DVDs and other resources are available from IPJC • 206.223.1138 • [www.ipjc.org](http://www.ipjc.org) • [ipjc@ipjc.org](mailto:ipjc@ipjc.org)



The protection of the environment is in fact 'an integral part of the development process and cannot be considered in isolation from it.' We urgently need a humanism capable of bringing together the different fields of knowledge, including economics in the service of a more integral and integrating vision." —**Pope Francis**

"...Mystical vision entails three forms of seeing—"What is," "what could be," and "the sacred powers of life at work in the world to bring wholeness for all. ...Mysticism is a boundless source of moral-spiritual power for human beings to receive divine love and then live it into the world. Where the morality and the mystery of God's presence are held in one breath—moral life understood as mystical life—moral agency may be found for forging paths toward more just, compassionate, and sustainable ways of living." —**Cynthia Moe-Lobeda**

"If the Earth is indeed a sacrament of divine presence, a locus of divine compassion, and a bearer of divine promise, then its ongoing destruction... is a deeply sinful desecration. In the tradition of biblical prophecy and the spirit of Jesus, the response of people of faith needs to become prophetic and challenging, promoting care, protection and healing of the natural world even if these go counter to powerful economic and political interests—and they do." —**Elizabeth Johnson**

Oikopraxial ecclesiology (Oikos—Earth as a vast but single household of life—means the capacity for survival, that is, sustainable habitat) is therefore a proposal of a church community that discerns and incarnates generative and creative practices within the pantheistic household of life. Through a participative global network of communions and local communities, oikopraxial ecclesiology enacts its identity both as a prophetic voice of just sustainability and as a mother who gives birth and nurtures life so that God may be all in all (1 Cor 15:28)." —**Randy Odchigue**

"In an evolutionary universe, nothing is complete which means God is still creating; the Spirit is creating anew and we are part of this new creation that is taking place in our midst. ...If wholeness is at the heart of life, then behavior itself will ultimately depend on love if a species is to survive. Evolution rests on the power of love because what ignites the core of beings is ultimately unitive and transformative." —**Ilia Delio**

"A just and sustainable planet is the great work of the twenty-first century to which all religions—indeed, all areas of human endeavor—are called... God is with us..." —**Sallie McFague**

Ecological theologians remind us that embodiment—the condition of constitutive materiality—is not merely a human or creaturely phenomenon but also an ecological datum." —**Christiana Peppard**

"Ecological conversion...is the radical change of mind and heart that leads to a deeper love and respect for all creatures as having their own integrity before God: it involves change to a sustainable lifestyle, to sustainable patterns of production and consumption and to sustainable economic and political choices." —**Denis Edwards**



## VIDEOS & MOVIES

There are a variety of videos listed by subject area that can be found and shown through the internet at [www.filmsforaction.org](http://www.filmsforaction.org)

### **Áina: That which Feeds** 2015

Set in Hawaii, it is about the environmental crisis and the island of Kauai and Island Earth—it provides one cultural perspective on care for Earth

### **Spiritual Ecology: The Cry of the Earth** 2013, 5 mins

A trailer featuring several spiritual leaders addressing spiritual ecology from the book of the same title

### **One Planet** 5 mins

A visual docu-poem reflection on the “One Planet” by Australian Joel McKerrrow

### **The Future of Energy: Lateral Power to the People**

1:05 hrs A documentary on the movement across the US to transition to renewable energy

### **Climate Deadline** 2015, 1:05 hrs

Documentary covering the UN climate talks from Durbin (2011) to the Paris talks in December 2015

### **Living with the Land Series**

Set in Australia the series has short clips on some of the practices for sustainably living on the land

- ◆ A Short series that educates about various aspects of sustainability
- ◆ Permaculture—5 mins
- ◆ Natural Building—6 mins
- ◆ Real Farming —5 mins
- ◆ Urban Permaculture—3 mins
- ◆ No Dig Gardening—6 mins
- ◆ Organics—4 mins
- ◆ Off-Grid Living—7 mins
- ◆ Education on Systems—6 mins
- ◆ 21st Century Foraging—7 mins

### **Planetary** 2015 (*in theatres*)

Explores our cosmic origins and our future as a species. It is a poetic and humbling reminder that now is the time to shift our perspective and see everything as interconnected

### TALKS ON VIDEO

#### **The Choice is Ours: Archbishop Desmond Tutu Calls for an “End of Fossil Fuel Era”** 6 mins

#### **David Suzuki: An Elder’s Vision for our Sustainable Future** 1:06 hrs

### REGIONAL VIDEOS

#### **Momenta** 2015, 40 mins

Film about the movement to stop the coal exports in the Northwest

#### **Breaking Point** 2015, 3 mins trailer (57 mins documentary)

On the water wars in California and the southwest

#### **The Sky is Pink** 2012, 18 mins

Marcellus Shale-fracking

#### **Clean Up or Cover Up** 2014, 4 mins

Aftermath of the worst mining disaster in Canadian history

### IPJC ENVIRONMENTAL/SUSTAINABILITY VIDEOS AVAILABLE FOR CHECK OUT

#### **Nourish** 2010, 26 mins

#### **Inequality for All** 2013, 90 mins

#### **Global Ones** (*Several films on one DVD*)

#### **Water: Drop of Life** 8 mins

#### **Fresh** 2009, 72 mins

#### **Global Climate & Praxis** 2014

#### **Economics of Happiness** 2011, 65 mins

#### **Dirt! The Movie** 2009, 80 mins

#### **The Awakening Universe** 2007, 15 mins



# RESOURCES ON SUSTAINABILITY

## BOOKS

- Barlow, Maude**, *Blue Future: Protecting Water for People and the Planet Forever*, 2014.
- Carroll, John E**, *Sustainability and Spirituality*, 2011.
- Delio, Ilia**, *From Teilhard to Omega: Co-creating an Unfinished Universe*, 2014.
- Delio, Ilia**, *The Unbearable Wholeness of Being: God, Evolution, and the Power of Love*, 2013.
- Delio, Ilia**, *Making All Things New: Catholicity, Cosmology, Consciousness*, 2015.
- Dauncey, Guy**, *City of the Future: A Journey to the Year 2032*, 2015.
- Edwards, Andres R**, *Thriving Beyond Sustainability: Pathways to a Resilient Society*, 2010.
- Howe, Joshua P**, *Behind the Curve: Science and the Politics of Global Warming*, 2014.
- Johnson, Elizabeth A**, *Ask the Beasts: Darwin and the God of Love*, 2014.
- Kline, Naomi**, *This Changes Everything: Capitalism vs. Climate Change*, 2015.
- Laszlo, Ervin**, *The Chaos Point*, 2006.
- McDonough, William and Braungart, Michael**, *The Upcycle: Beyond Sustainability—Designing for Abundance*, 2013.
- McFague, Sallie**, *A New Climate for Theology: God, the World, and Global Warming*, 2008.
- McFague, Sallie**, *Blessed are the Consumers: Climate Change and the Practice of Restraint*, 2013.
- McKenzie-Mohr, Doug**, *Fostering Sustainable Behavior*, 2011.
- Moe-Lobeda, Cynthia D**, *Resisting Structural Evil: Love as Ecological-Economic Vocation*, 2013.
- Mulligan, Martin**, *An introduction to Sustainability: Environment, Social and Personal Perspectives*, 2015.

**Peppard, Christiana Z.**, *Just Water: Theology, Ethics and the Global Water Crisis*, 2014.

**Peppard, Christiana Z. and Andrea Vicini**, *Just Sustainability: Technology, Ecology, and Resource Extraction*, 2015.

**Robertson, Margaret**, *Sustainability Principle and Practice*, 2014.

## WEBSITES

- Ask Nature**, [www.asknature.org](http://www.asknature.org)
- Carbon Footprint Calculator**, [www.nature.org/greenliving/carboncalculator](http://www.nature.org/greenliving/carboncalculator)
- Catholic Climate Covenant**, [www.catholicclimatecovenant.org](http://www.catholicclimatecovenant.org)
- Climate Solutions**, [www.climatesolutions.org](http://www.climatesolutions.org)
- Fostering Sustainable Behavior**, [www.cbsm.org](http://www.cbsm.org)
- Future 500**, [www.future500.org](http://www.future500.org)
- Good Guide**, [www.goodguide.com](http://www.goodguide.com)
- International Institute for Sustainable Development**, [www.iisd.org](http://www.iisd.org)
- The Long Now Foundation**, [www.longnow.org](http://www.longnow.org)
- Our Voices: Bringing Faith to the Climate Talks**, [www.ourvoices.net](http://www.ourvoices.net)
- Putting Energy into Stewardship: Green Your Congregation**, [www.tiny.cc/u90zix](http://www.tiny.cc/u90zix)
- The Solutions Project**, [www.thesolutionsproject.org](http://www.thesolutionsproject.org)
- Story of Stuff**, [www.storyofstuff.org](http://www.storyofstuff.org)
- Sustainable Communities**, [www.sustainable.org](http://www.sustainable.org)
- World Economic Forum**, [www.weforum.org](http://www.weforum.org)
- 350**, [www.350.org](http://www.350.org)





# SUSTAINABLE DEVELOPMENT GOALS

TRANSFORMING OUR WORLD—THE 2030 AGENDA FOR SUSTAINABLE DEVELOPMENT

<p><b>1</b> NO POVERTY</p> 	<p>End poverty in all its forms everywhere.</p>	<p><b>10</b> REDUCED INEQUALITIES</p> 	<p>Reduce inequality within and among countries</p>
<p><b>2</b> ZERO HUNGER</p> 	<p>End hunger, achieve food security and improved nutrition, and promote sustainable agriculture</p>	<p><b>11</b> SUSTAINABLE CITIES AND COMMUNITIES</p> 	<p>Make cities and human settlements inclusive, safe, resilient and sustainable</p>
<p><b>3</b> GOOD HEALTH AND WELL-BEING</p> 	<p>Ensure healthy lives and promote wellbeing for all at all ages</p>	<p><b>12</b> RESPONSIBLE CONSUMPTION AND PRODUCTION</p> 	<p>Ensure sustainable consumption and production patterns</p>
<p><b>4</b> QUALITY EDUCATION</p> 	<p>Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all</p>	<p><b>13</b> CLIMATE ACTION</p> 	<p>Take urgent action to combat climate change and its impacts (taking note of agreements made by the UNFCCC forum)</p>
<p><b>5</b> GENDER EQUALITY</p> 	<p>Achieve gender equality and empower all women and girls</p>	<p><b>14</b> LIFE BELOW WATER</p> 	<p>Conserve and sustainably use the oceans, seas and marine resources for sustainable development</p>
<p><b>6</b> CLEAN WATER AND SANITATION</p> 	<p>Ensure availability and sustainable management of water and sanitation for all</p>	<p><b>15</b> LIFE ON LAND</p> 	<p>Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification and halt and reverse land degradation, and halt biodiversity loss</p>
<p><b>7</b> AFFORDABLE AND CLEAN ENERGY</p> 	<p>Ensure access to affordable, reliable, sustainable and modern energy for all</p>	<p><b>16</b> PEACE, JUSTICE AND STRONG INSTITUTIONS</p> 	<p>Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels</p>
<p><b>8</b> DECENT WORK AND ECONOMIC GROWTH</p> 	<p>Promote sustained, inclusive and sustainable economic growth, full and productive employment, and decent work for all</p>	<p><b>17</b> PARTNERSHIPS FOR THE GOALS</p> 	<p>Strengthen the means of implementation and revitalise the global partnership for sustainable development</p>
<p><b>9</b> INDUSTRY, INNOVATION AND INFRASTRUCTURE</p> 	<p>Build resilient infrastructure, promote inclusive and sustainable industrialisation, and foster innovation</p>		



## Intercommunity Peace & Justice Center

a collaborative venture of:

sponsoring communities: Adrian Dominican Sisters • Congregation of the Sisters of St. Joseph of Peace  
Oregon Province Jesuits • Sisters of the Holy Names of Jesus and Mary, U.S. Ontario Province  
Sisters of Providence, Mother Joseph Province • Sisters of St. Francis of Philadelphia • Tacoma Dominicans

affiliate communities: Benedictine Sisters of Cottonwood, Idaho • Benedictine Sisters of Lacey • Benedictine Sisters of Mt. Angel  
Dominican Sisters of Mission San Jose • Dominican Sisters of San Rafael • Sinsinawa Dominicans  
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