

# Easy Things We Can Do for the New Decade 2020-2029 to Help Save the Environment

## I. Understand how I impact the environment

### A. Facts about energy:

1. Reducing energy use is one of the most constructive ways to reduce my carbon footprint.
2. Nation-wide coal accounts for 76% of global CO2 emissions and Natural Gas 22%. (US EPA) and energy costs are typically one of the biggest I face. In PA we get most of its energy from fossil fuels coal and natural gas and some from nuclear and to a very small degree renewables. HVAC accounts for about a third of my energy use, followed by lighting and water heating and other energy loads for about one-quarter. Only about 5% of regular incandescent bulbs give off light. A CFL bulb uses 75% less energy than a regular incandescent bulb and can last for four years. LEDs are even better.
3. A crack as small as 1/16th of an inch around a window frame can let in as much cold air as leaving the window open three inches (Alliant Energy).

### B. Facts about water:

1. While water shortages are not critical a problem in Pittsburgh, worldwide shortages, specifically clean freshwater, is a serious - in some places it is a matter of life or death. While the average cost of tap water is \$0.004/gallon, bottled water can be 300 times more expensive. According to the WSJ, (2/17/09) "It takes roughly 20 gallons of water to make a pint of beer, as much as 132 gallons of water to make a 2-liter bottle of soda, and about 500 gallons, including water used to grow, dye and process the cotton, to make a pair of Levi's stonewashed jeans." Coca-Cola, of course, maintains it is much less than that.

### C. Facts about food:

1. Most food travels 3000 miles to get to a Pittsburgh table. A shared meal like communion, is a way emotionally and spiritually to connect with each other. Attention "needs be given to the weak and vulnerable" to strengthen our connection that we are "one human family". 30% of the food we grow is never eaten, enough to feed 3 billion people. It takes 1850 gallons of water to produce 1 lb. of beef versus 39 gallons for 1 lb. of vegetables.

### D. Facts about landscaping:

1. Many studies show the physical, emotional, spiritual and environmental benefits of planting and caring for a garden. However, what we care for and how we care for them determines whether we enhance or harm the environment. Sustainable gardening practices can create an oasis for people and wildlife and restore ecosystems. Lawns require frequent mowing, watering and chemicals that do not provide much for wildlife habitat and spew greenhouse gasses. Improperly applied chemicals damage animal life and contribute to runoff polluting waterways

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- E. Facts about the most vulnerable:
  - 1. Older people are more susceptible and suffer higher mortality due to weather extremes and stress from food of water insecurity and reduced ability to mobilize quickly. Severe weather presents severe threats to the elderly, poor homeless and the crowded-in (agricultural workers, urban poor, etc.). Firefighters, EMTs and Police are likely to be increasingly put in harm's way. Crowded coastal communities and nations, like Louisiana and Bangladesh, have significant risk due to coastal flooding.

## II. Make a Challenging, but Realistic Plan

- A. Educate myself to understand how I source and allocate my electricity, is it electricity, NG, or renewables. Do I have options? How much is HVAC, Lighting, etc.
  - 1. Use an online program to calculate my carbon footprint
  - 2. Check for cracks and leaks around windows and doors
  - 3. Do an energy audit
    - a. Go to PA Interfaith Power and Light (PAIPL), Duquesne Energy, or Powerwise.
    - b. Find out insulation level
    - c. Compare findings to similar houses.
    - d. Find out if grants are available if grants are available - See PAIPL
    - e. Price out solar panels, solar water heaters
  - 4. Find out what your municipality recycles and what happens to it after they pick it up
  - 5. Do a waste audit - See what else I can add to my recycling

## III. Implement It (Slowly, but Continuously)

- A. Make home energy conservation second nature
- B. Chose some easy priorities
  - 1. Swap out old light bulbs for LEDs.
  - 2. Put more lights on motion detectors
  - 3. Install programable thermostats
  - 4. Install ceiling fans
  - 5. Dress warm in winter, cool in the summer
  - 6. Set thermostat for 70 degrees winter, 74 in summer, 55 when vacant)
  - 7. Seal cracks and leaks.
  - 8. Upgrade insulation if needed

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9. More advanced options
  - a. Replace older appliances with Energy Star ones
  - b. Replace single pane windows with double (or triple) panes
  - c. Plant trees
  - d. Put solar panels on roofs
  - e. Apply for grants - See PAIPL
  - f. Keep all household members informed of progress/problems and involved in key decisions so they understand the bigger picture and how it relates to them

### **IV. Recycle, Re-use and Reduce (Purchases)**

- A. Refuse straws and plastic bags
- B. Buy recycled paper
- C. Print paper on both sides
- D. Recycle ink cartridges - (i.e. Staples pays rebates)
- E. Recycle non-reusable batteries - i.e. Best Buy
- F. Take old computers and electronics to computer recycling centers
- G. Donate old usable equipment to non-profits
- H. Buy natural, recycled or recyclable materials
- I. Use reusable or bio-degradable plates, cups and utensils (instead of plastic or Styrofoam)
- J. Start a compost pile - Put a small can in kitchen to collect banana peels, eggshells, coffee grounds, tea bags apple cores, paper towels and waste foods
- K. Recycle store receipts, shredded personal papers, etc.
- L. Buy secondhand clothes. Donate old clothes, toys
- M. Repair what you can - Even if it is more expensive
- N. Before buying, ask: Do I need it? Can I afford it? Would the world be better off not buying it?

### **V. Curtail Transportation**

- A. Carpool. Uber pool.
- B. Create a club carpool database. Start a transportation ministry for mass, social clubs
- C. Rent or buy hybrid or electric cars (or at least high gas efficiency cars) for selves or parish use
- D. Install charging stations at church, club schools
- E. Grant priority parking for hybrids, electrics and compact cars

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- F. Offset jet travel with public transportation when you arrive, or rent hybrids
- G. Except in the coldest weather, don't warm up your car until you have put on your seat belt, etc.

### **VI. Save Water**

- A. Turn off water when brushing teeth
- B. Check toilets for leaks
- C. Install low flow shower heads
- D. Take shorter showers and showers instead of baths
- E. Use lukewarm or cold water weather permitting
- F. Use dishwasher and washing machine only with a full load or water saver device
- G. Retrofit high use toilets and fixtures with low-flow and dual flush fixtures
- H. Install sensors to automatically turn off faucets
- I. Install waterless urinals
- J. Minimize outdoor water use with water-wise landscaping

### **VII. Buy and Share Food**

- A. Use recyclable, cloth shopping bags. Refuse plastic
- B. When possible, buy local, natural or organic food
- C. Choose items with less packaging
- D. Buy in bulk and freeze small portions to reduce plastic wrapping
- E. Don't overbuy. Store properly. Eat leftovers before spoiling.
- F. Turn aging fruits and vegetables into smoothies
- G. Compost corn cobs, banana peels, eggshells, coffee grounds, tea bags, apple cores, paper towels and waste foods.
- H. Eat lower on the food chain - more fruits and vegetables, less meat
- I. Continue Meatless Fridays, start Meatless Mondays
- J. Fast during lent. Do the Rice Bowl thing. Donate to a food pantry
- K. Avoid bottled water, soft drinks
- L. Ask people to bring their own cups, or supply them with reusable ones
- M. Support local food pantries
- N. Join a food co-op or community food network, especially an organic one
- O. Grow your own food garden
- P. Donate unused foods

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### **VIII. Form a Green Team for your church, temple, condominium or civic association and do all of the above plus:**

- A. The Green Team should:
  - 1. Bring in Expert speakers - PA Interfaith Power and Light (PAIPL), Home Depot, Breathe Project, Penn State, etc.
  - 2. Whatever the organization, include both the dedicated people to do the legwork and also people who will be important in financial decision making
- B. For Condominium Associations or landowners:
  - 1. Learn as much as you can about natural habitat - (Penn State Extension Program)
  - 2. Plant trees that inhale the CO<sub>2</sub>, shade houses, protect against erosion and runoff water, moderate the heat in cities, provide windbreaks, provide habitat for lightening bugs, butterflies, squirrels, birds and a myriad of creatures
  - 3. Leave room for meandering species
  - 4. Remove non-native species like kudzu, privet, etc.
  - 5. Plant native species. They control pests and attract beneficial insects, restore biodiversity, and provide food for native wildlife
  - 6. Use correct planting procedures. Some plants like sun, others shade. Group high water needed plants together
  - 7. Connect landscape with nearby urban forests and wild areas to mimic natural wooded property, creating a corridor for birds and wildlife migration
  - 8. Reduce lawn size.
  - 9. Use pesticides and fertilizers only with great care when required - never before a storm.
  - 10. Be water-wise. Control for water runoff from parking areas
  - 11. Plant for pollinators.
  - 12. Furnish food sources such as native trees, shrubs flowers and vines for foliage, nectar, pollen, berries, seeds and nuts for wildlife.
  - 13. Provide protective cover for wildlife, including brush and rock piles, leaf litter and dense shrubs.
  - 14. Leave freshwater for birdbaths
  - 15. Create a community compost program, vegetable garden or a meditation garden
  - 16. Become a citizen scientist. Participate in surveys
  - 17. Teach children to care for the earth
  - 18. Identify vulnerable populations, connect them with resources, have people assigned to assist in emergencies.

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- C. For churches or other organizations:
  - 1. Encourage priests and parish team to draw on the long and rich biblical and magisterial tradition of the “Gospel of Creation” - using homilies, bulletin inserts and blogs - to help parishioners understand their responsibility and duty toward creation and to those who suffer climate catastrophes as an essential part of their faith.
  - 2. Encourage priests and parish team to draw on our long and rich biblical and magisterial tradition of the “Gospel of Creation” - using homilies, bulletin inserts and blogs - to help parishioners understand their responsibility and duty toward creation and to those who suffer climate catastrophes as an essential part of their faith. Use Prayers of the Faithful, etc. to pray for the people suffering from climate catastrophes.
- D. For Schools
  - 1. Expand the school Library to include a “creation care” section
  - 2. Campaign for broader school curricula to include: students’ relationship to nature, earth science, climate change, energy alternatives, responsibilities to those at risk. And start recycling programs with bins at school doors

### **IX. Engage in Political Action**

- A. Stay informed of critical environmental issues.
- B. Have a point person assigned to keep the group informed.
- C. Get to know elected officials
- D. Develop options for members to engage in moving society
- E. Encourage members to let officials know “we care for our common home” when critical environmental decisions are being made
- F. Support candidate positions consistent with Laudato Si.
- G. Support community projects such as gardens, a park, a river cleanup, etc.
- H. Support businesses that are ethical and sustainable
- I. Consider a pilgrimage to City Hall or State Capitol
- J. Join a local group that meets your environmental interests - Sierra, Audubon, 350.org.etc.

### **X. For Outreach to assist the most vulnerable**

- A. Develop a list of vulnerable members, make sure they have access to cool or warm or dry places, social services and evacuation plans if needed.
- B. Have parish fund raisers for AC units or space heaters
- C. Collaborate with farmers for safe spaces for agricultural workers

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- D. Develop a phone or visitation list for members to check on the vulnerable and assist as needed. Have backup people.
- E. Communicate with municipal or social services agencies so they know who is vulnerable
- F. Encourage the vulnerable to enroll in Low income Home Energy Assistance Programs via - US Dept. of Health and Human Service, and the State.
- G. Open churches or schools as refuges
- H. Know which parts of your community are most vulnerable to flooding and storm damage.
- I. Create parish emergency-partner programs to open facilities if needed
- J. Collaborate with government disaster preparedness agencies. Invite them to visit
- K. Learn First Aid

### **XI. Engage the Young**

- A. Teach love respect for the local ecosystem, the vulnerable, care for all creatures and all creation.
- B. Walk, bike or Carpool when possible
- C. Tap into the EPA's Eco-portal for eco-activities, games, quizzes, etc.; how to conduct a waste audit for a school, how to pack a waste free lunch; calculate the life cycle of a soccer ball; and teach lessons in energy, air, water, recycling, chemicals and waste and environmental health.
- D. Join a "Green and Healthy Schools' program and do the self-guided assessments for teachers and students to understand and practice environmentally sound principles in up to six assessment areas (air, energy, facility management, school grounds, solid waste and water) including cost-saving measures.
- E. Walk to school or church (if safe and within a mile).
- F. Encourage litter pickup along the way or any walk. Have collection bins at Church/School door to make it convenient
- G. Set up a school recycling program. Learn what your municipality accepts and what they do with it.
- H. Create a schoolyard habitat. The National Wildlife Federation's "How to Guide" for Schoolyard habitats walks teachers through steps for a successful and sustainable garden, for teaching in an outdoor classroom and to create and maintain habitat.
- I. Use recycled paper
- J. Join "Recycle Bowl Competition" from "Keep America Beautiful".
- K. Incorporate environmental lessons into Sunday School
- L. Cultivate a school garden

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- M. Review Penn State Cooperative Extension page for ideas, expertise
- N. Plant a class tree
- O. Visit 4H or environmental centers with guides
- P. Learn to identify native plants
- Q. Celebrate St. Francis Day.
- R. Bring pets to pet blessings
- S. Set temperature at 68 in winter, 78 in summer
- T. Turn off lights when not in use

### **XII. For Families**

- A. Encourage children to help with garden chores, grow organics.
- B. Talk about how trees absorb CO<sub>2</sub>, what pollinators do
- C. Visit Nature Centers.
- D. Help clean up waterways (Allegheny Cleanways)
- E. Participate in student scientist experiments
- F. Read/watch the Lorax