# LAUDATO SI'

On Care for Our Common Home



An Action Plan For

ARCHDIOCESE OF ATLANTA

### THE CANTICLE OF THE SUN

St. Francis of Assisi

Most High, all powerful, all good Lord!
All praise is Yours, all glory, all honor, and all blessing.

To You, alone, Most High, do they belong. No mortal lips are worthy to pronounce Your name.

Be praised, my Lord, through all Your creatures, especially through my Lord Brother Sun, who brings the day; and You give light through him. And He is beautiful and radiant in all His splendor! Of You, Most High, he bears the likeness.

Be praised, my Lord, through Sister Moon and the stars; in the heavens You have made them bright, precious and beautiful.

Be praised, my Lord, through Brothers Wind and Air, and clouds and storms, and all the weather, through which You give Your creatures sustenance.

Be praised, my Lord, through Sister Water; she is very useful, and humble, and precious, and pure.

Be praised, my Lord, through Brother Fire, through whom You brighten the night. He is beautiful and cheerful, and powerful and strong.

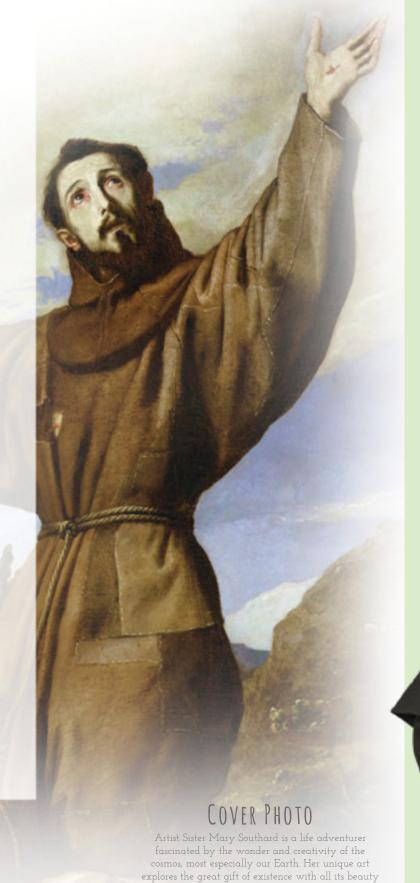
Be praised, my Lord, through our sister Mother Earth, who feeds us and rules us, and produces various fruits with colored flowers and herbs.

Be praised, my Lord, through those who forgive for love of You; through those who endure sickness and trial. Happy those who endure in peace, for by You, Most High, they will be crowned.

Be praised, my Lord, through our sister Bodily Death, from whose embrace no living person can escape. Woe to those who die in mortal sin! Happy those she finds doing Your most holy will.

The second death can do no harm to them.

Praise and bless my Lord, and give thanks, and serve Him with great humility.



and longing, its passion and mystery. She is a member of the Congregation of St. Joseph La Grange Park Center, located in La Grange Park, Illinois.

## "Laudato Si', mi Signore"

"Praise be to you, my Lord"

## GREETING

My dear friends in Christ,

#### PEACE AND ALL GOOD THINGS!

In the Canticle of the Sun, St. Francis of Assisi calls us to praise God through creation. In this beautiful hymn, we name, honor and give thanks for the wonders of the natural world. The Archdiocese of Atlanta Laudato Si' Action Plan is a way to live out the Canticle. In it, we name, honor and give thanks for the gifts of creation as we work to preserve it. I invite you to immerse yourself in prayer as you undertake this plan.

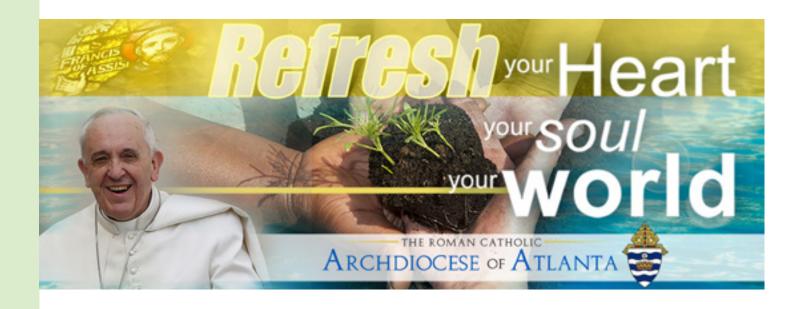
When Pope Francis released "Laudato Si" in 2015, a dedicated group of people saw an opportunity to share their knowledge of how to live sustainably with the Catholic community. Their efforts bore great fruit, as you will see reading through this updated plan. We decided that after five years of work, we should look back at our success and consider ways to continue to move forward. This updated plan is the result of that reflection, research, collaboration and prayer.

I offer my heartfelt thanks to the authors of the plan as well as the parishes and schools who showed us that a little effort can make a huge difference. I hope you will consider how you can use this plan in your own community. In the words of St. Francis, "praise and bless my Lord, and give thanks, and serve him with great humility."

Yours in Christ,

The Most Rev. Gregory J. Hartmayer, OFM Conv.
Archbishop of Atlanta





### TABLE OF CONTENTS

- 05. Introduction
  Judeo-Christian Witness
  to Creation Care
  Georgia's climate is changing
  What this document is
- Engage Parishioners and Students
- 14. Conserve Energy
- 24. Conserve Water
- 29. Purchase Wisely and Recycle
- 35. Buy and Share Food Thoughtfully
- 43 Make Smart Mobility Choices

- 49. Use Land Sustainably
- 56 Embrace Environmental Justice and Equity
- 62. Advocate for the Earth and the Vulnerable
- 68. Adapt Laudato Si' for Young People
- 74. Conclusion
- 75. A Prayer for our Earth
- 76. Contributors

#### ACKNOWLEDGEMENT

We wish to thank Cardinal Wilton D. Gregory for the opportunity and honor of writing the original version of this document to help Catholics and other faith communities throughout Georgia to do their part to implement Pope Francis' Encyclical "Laudato Si"."

## INTRODUCTION

"THERE ARE NO EASY OR FACILE SOLUTIONS TO THE CHALLENGES WE FACE TO PROTECT AND PRESERVE RESOURCES THAT BELONG TO ALL OF HUMANITY." – Cardinal Wilton Gregory,

IIY. – Cardinal Wilton Gregory, Archbishop of Washington, D.C.

On June 18, 2015, Pope Francis released "Laudato Si," a plea to humanity "to hear the cry of the earth and the cry of the poor," and Georgia's Catholics responded to the call. The Most Rev. Wilton D. Gregory, then Archbishop of Atlanta, commissioned a group of University of Georgia (UGA) faculty to develop a Laudato Si' Action Plan in the spirit of our Holy Father who said, "all of us can cooperate as instruments of God for the care of creation, each according to his or her own culture, experience, involvements and talents." [LS 14] The interdisciplinary and interfaith group of UGA scientists and engineers developed concrete ways for Georgia's parishes, schools and parishioners to care for our common home and one another. To our knowledge, this action plan is the first created for Pope Francis' environmental encyclical "Laudato Si'."

In April 2016, Archbishop Gregory launched the Laudato Si' Action Plan at the University of Georgia. More than 200 people attended, including the UGA faculty who contributed their expertise.



(I to r) Rev. Dr. Gerald Durley, Civil rights leader; Susan Varlamoff, Laudato Si' Action Plan co-author; Cardinal Wilton Gregory, then Archbishop of Atlanta and Dr. Marshall Shepherd, University of Georgia Climate Scientist at the launch of the Laudato Si' Action Plan April 4, 2016 at the University of Georgia. Photo - Ivan Varmaloff

The Action Plan prompted a Catholic philanthropist to finance a pilot project in 2017, coordinated by a St. Jude parishioner and engineer. Twelve parishes and schools from the Archdiocese of Atlanta participated in energy and water audits. In addition, they developed three-year energy and water conservation plans. Many established creation care teams.

Following the pilot project, the participating churches and schools secured \$34,000 in grant funding to take the first steps to upgrade their facilities with the potential to reduce energy by 16 percent. St. Mary's Catholic School in Rome, Georgia, replaced halide lights with LED lamps and reduced the energy in their gym by 50 percent over two years.

Facility managers and pastors from participating churches and schools attended a half-day conference and unanimously agreed that the program should be offered to all parishes, missions and schools in the Archdiocese of Atlanta. They realized that by reducing the cost of operating their churches and schools, more money became available for other ministries.

In 2020, the archdiocese hired a part-time sustainability program coordinator and sustainability strategist to begin the Atlanta Laudato Si' Initiative. This initiative extended energy and water audits to an additional 12 churches and schools. Mission and vision statements were written and partners were secured for the project. A seven-year work plan was developed to align with the Vatican's Laudato Si' Action Platform. The work plan addresses all 10 aspects of the action plan which includes reducing energy, water and waste as well as cultivating church gardens to feed the poor, using land sustainably and advocating for the earth and vulnerable. Elements of Drawdown Georgia, inspired by Project Drawdown (100 solutions to mitigate climate change) and financed by the Ray C. Anderson Foundation, have been integrated into the plan.

As of 2021, nearly 40 churches and schools participate in expanding Atlanta's Laudato Si' Initiative. Catholics in North Georgia have heard "the cry of the earth and the cry of the poor," and responded by becoming more energy and water efficient, recycling, feeding the poor with fresh produce grown in church and school gardens and planting trees and native plants. As a result, the Vatican named Kat Doyle, director of the Archdiocese of Atlanta's Justice and Peace Ministries, to represent the United States on the Parishes and Dioceses Working Group of the Laudato Si' Action Platform to help coordinate its multi-year roll out.

Did you know?

THE CATHOLIC CLIMATE COVENANT ACKNOWLEDGED THE ARCHDIOCESE OF ATLANTA AS "PERHAPS THE EARLIEST, MOST SYSTEMATIC AND ACTIVE ON "LAUDATO SI" IMPLEMENTATION (IN THE U.S.)"

The Laudato Si' Action Plan developed in Atlanta is now being used as a template for many other dioceses and archdioceses throughout the country including Boston, Washington D.C., Newark, Cleveland and Minneapolis.



Launch of the Laudato Si' Action Plan at the University of Georgia April 2016. Photo - J. David Pace, The Georgia Bulletin

"How inseparable the bond is between concern for nature, justice for the poor, commitment to society, and interior peace. -Pope Francis

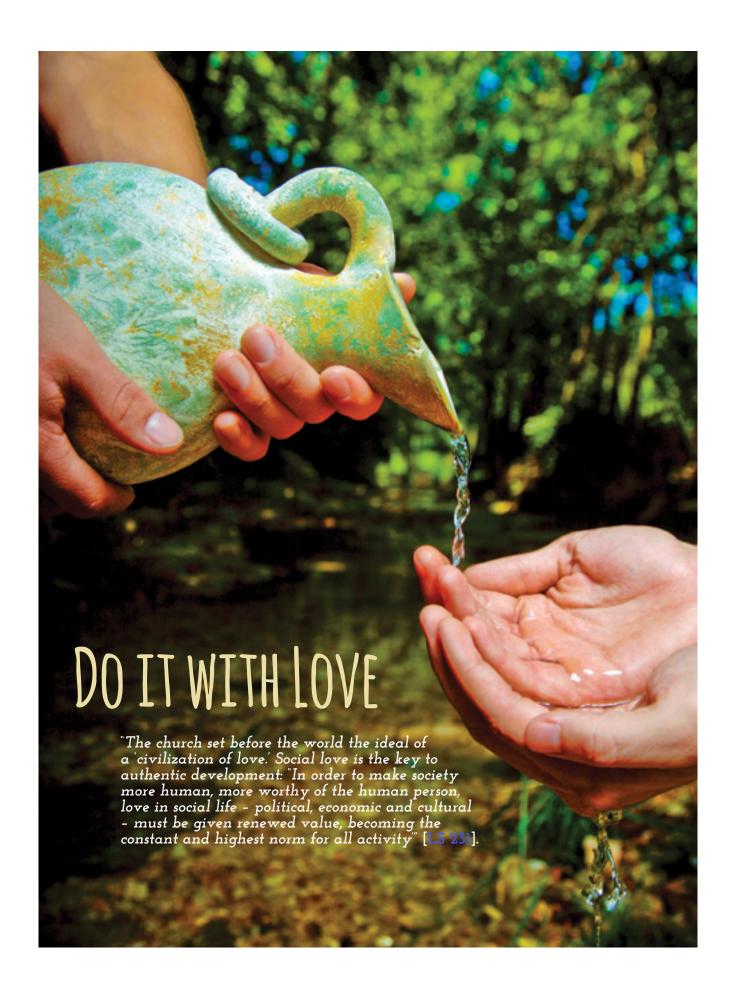


Kat Doyle, director of the Archdiocese of Atlanta's Justice and Peace Ministries. Photo - Michael Alexander, The Georgia Bulletin

With experience gained from implementing the first edition of the action plan, and in consideration of the changing world in which we live, the archdiocesan sustainability team has invited experts with knowledge of theology, environmental justice, political action, education, climate science and waste management and recycling to update the Atlanta Action Plan. These people include government officials, professors, leaders of environmental nonprofits, politicians, a school principal, lawyers, engineers and a cloistered monk. Environmental justice and equity serve as the lenses through which we have evaluated the actions chosen for the 2021 Atlanta Laudato Si' Action Plan. Most chapters contain recommendations to assist the vulnerable as we take the journey together to care for creation and one another. An entire chapter is devoted to the disproportionate effects of pollution and climate change on the poor and people of color.

Pope Francis suggested "that human life is grounded in three fundamental and closely intertwined relationships: with God, with our neighbor and with the earth itself." [LS 66] Pope Francis asks us for a "profound interior conversion" that will come from "major paths of dialogue" and lead us toward a future in which "all people can prosper personally and economically in harmony with the gifts God has given us in nature."

This document provides a path for all people to make the ecological and ethical transformation necessary to care for Creation and one another.



## Judeo-Christian Witness to Creation Care

The Bible and Catholic tradition tell a story of God's passionate love affair for creation. Indeed, the entire story from the beginning of the Bible to its end consists of one long creation saga, a story of God's salvific action on behalf of all things.

In Genesis 1 and 2, God places humans in the created domain to care for it as he would. The mastery God gives humans is to maintain the relationships and blessings God has established. At the completion of the Sabbath rest, all creation abides in proper relationships with humans, as the image bearers of God, responsible for its perpetuity.

This strong connection between humans and the land is reflected in the covenants God establishes with Noah, Abraham, Moses and with the Jewish people as they prepare to enter the Promised Land. These are three-way covenants between God, humans and the land. If humans act justly toward one another, the land and its inhabitants will prosper. Through the prophets, God also warns that injustice will lead to failure, not only for the human community, but also for the land and its creatures. Acting justly includes acting wisely - observing how creation works and cooperating with it.

## To what does this call us as Christians?

First, we must honor all created things as loved by God. We need to learn to contemplate nature so that we might find God's presence there as well as in other humans. Second, in Christ we should learn to act wisely and justly with and for all creatures, human and nonhuman. And third, we should join in the sacred mission of reconciling all people and creation in Christ, for this has been in God's heart from the very beginning.

## Georgia's climate is changing

In Georgia, we are blessed with abundant natural resources, varied geography, soils and biodiversity. As the largest state east of the Mississippi, it stretches from the Blue Ridge Mountain in the north, across the rolling Piedmont where metro Atlanta lies, to the farmlands of southwest Georgia and then over the Coastal Plains to the Atlantic Ocean. The north Georgia mountains contain some of the richest biodiversity on earth. Coastal Georgia comprises one-third of all the remaining salt marshes on the U.S. East Coast. Water roars over the waterfalls in Rabun County, babbles over rocky shoals in the Chattahoochee River and meanders placidly between sandbars on the Altamaha.

#### However, all is not well.

Climate change in Georgia is affecting the state and its residents in many ways. The average state temperature has risen by almost 1.5 degrees Fahrenheit since the 1950s, increasing the length of the growing season by more than a week, decreasing the number of cold winter days and increasing summer heat waves. The rising temperatures are most noticeable at night since minimum morning temperatures are rising at twice the rate of daytime high temperatures. They also impact the residents of urban areas more severely, since highly populated areas like Atlanta are often more than 10 degrees

Fahrenheit warmer than surrounding rural areas due to the urban heat islands driven by paved areas and lack of trees. The warmer temperatures allow the planting of new crops like citrus, but hurt the productivity of Georgia peach trees, which need cold temperatures in winter to produce fruit.

Climate change is also increasing the variability of the water cycle, leading to more floods and droughts. Both floods and droughts are also becoming more severe and more frequent, with five extreme droughts affecting parts of Georgia since 2000. Shifts in rainfall along with warmer temperatures increase evaporation and put stress on agricultural systems as well as municipal water supplies. Rising sea surface temperatures and simultaneous changes to global weather patterns are leading to increases in hurricane strength and are likely to result in more tropical storms in the future. These result in costly wind damage to crops, forests, homes, businesses and infrastructure in Georgia. In addition, sea levels at Savannah's Fort Pulaski have risen more than nine inches since 1935 due to a combination of warming oceans, melting land ice and sinking coastlines, leading to increases in vulnerability along the coast. All these disruptions also put stress on natural ecosystems and landscapes, adding to the impacts of increased invasive species and human disturbance.



Oct. 10, 2018, category 5 Hurricane Michael came roaring through South Georgia causing \$2 billion in damage to farms and forests.

Photo - Georgia National Guard

#### What this document is:

This Action Plan contains a menu of options that parishes, schools and individuals can take to start the urgent and important spiritual work of reversing the threat of global climate change and environmental degradation and living more sustainably in harmony with God's creation. Because there is so much variety and diversity among parishes and schools, in terms of improvement priorities and human and financial resources, the menu of options presented here are ranked easy, moderate and advanced. Everyone is encouraged to go as far as they can in implementing "Laudato Si." More importantly, all Catholics are urged by Pope Francis to seek the change of heart that is required to make these actions part of their daily lives.



This Action Plan also provides links to resources that pastoral staff and parishioners can access to learn more and carry out the actions they select. Catholics can drill deeper into each topic, such as finding out how to get an energy audit; calculating your family's carbon footprint; learning about native plants for your parish, school or home garden; or how to generate support for national policies that reduce greenhouse gas emissions.

As "Laudato Si" observes, the most critical environmental challenge that we face is the threat of global climate change. However, as Pope Francis said, "avoiding the use of plastic and paper, reducing water consumption, separating refuse, cooking only what can reasonably be consumed, showing care for other living beings, using public transport or car-pooling, planting trees, turning off unnecessary lights or any number of other practices," are also needed to address our "responsibility within creation and [our] duty towards nature and the Creator."

# ENGAGE PARISHIONERS AND STUDENTS

IN "LAUDATO SI," THE HOLY FATHER
"CHALLENGES US TO EXAMINE OUR
LIFESTYLE." HE URGES US TO WORK
TOGETHER AND EDUCATE EACH OTHER
ON THE ISSUES HE RAISES IN HIS
ENCYCLICAL.



nvironmental education, he says, "seeks also to restore the various levels of ecological equilibrium, establishing harmony within ourselves, with others, with nature and other living creatures and with God. Environmental education should facilitate making the leap towards the transcendent which gives ecological ethics its deepest meaning" [LS 210]. Consider also inviting your neighbors in the community to participate in parish activities such as a stream clean-up or even attending a lecture.

#### Speak from the pulpit



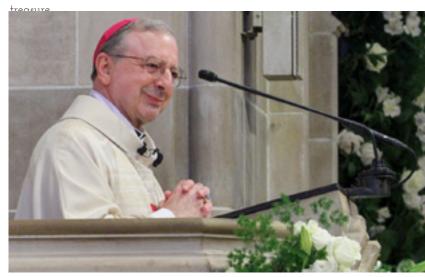
As the Holy Father pointed out, we Roman Catho-

lics have a long and rich biblical and magisterial tradition of "the Gospel of Creation." Pastors and deacons could draw from this tradition in homilies, letters, parish bulletins and blogs to help parishioners "realize that their responsibility within creation and their duty towards nature and the Creator, are an essential part of their faith" [LS 64]. Many of the writings of St. John Paul II, Pope Benedict XVI and the "Respect for the integrity of creation" chapter in the Catechism of the Catholic Church are helpful starting points for messages about the importance of respecting and valuing God's gift of nature and the natural environment. During the homily, the parish



Mulch Day at St. John Neumann Church, Lilburn, where entire families participated. *Photo - Susan Varmaloff* 

priest can give some background on the Archdiocese of Atlanta's support of Pope Francis' environmental encyclical "Laudato Si" and the archdiocese's role in implementing the Action Plan in parishes and Catholic schools. He can announce that the parish will organize a Creation Care Team and ask for volunteers. There are many talented and motivated people sitting in the pews who may be waiting to be asked to join such an effort and are willing to donate their time, talent and



Archdiocese of Atlanta Auxiliary Bishop, Joel M. Konzen, S.M. Photo - Michael Alexander, The Georgia Bulletin

# Hold seminars to encourage group learning from experts, books, videos and podcasts (easy)

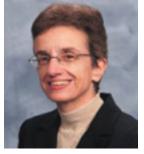


Parishes could enhance their adult and young adult education programs with expert speakers from various environmental fields. Another option is to host live speakers at "Laudato Si" seminars based on reviewing books, videos and podcasts (see below). Raising environmental awareness "needs educators capable of developing an ethics of ecology and helping people, through effective pedagogy, to grow in solidarity, responsibility and compassionate care" [LS 210]. In Georgia, there are many such people of all faiths who can speak about climate science, agriculture, energy conservation,

recycling, creation care, spirituality, gardening and water conservation. These folks are in Georgia's biggest businesses such as the Home Depot Eco-Actions Program and the many sustainability programs at Coca Cola, as well as our colleges and universities and state and local governments. The Archdiocese of Atlanta Justice and Peace Ministry also provides lists of speakers who can visit parishes for adult and young adult education. Georgia Interfaith Power and Light engages communities of faith in stewardship of creation and can provide speakers also.

## Study books, videos and podcasts (easy)

Many parishes, and all schools have libraries. There are many superb books that could serve as learning resources for an interested parishioner, student, creation care team, or as the start of a creation care library section. These include books by Passionist



Sister Ilia Delio,OSF

Father Thomas Berry, Franciscan nun and Georgetown University Professor Sister Ilia Delio, OSF, and Jesuit paleontologist Pierre Teilhard de Chardin, S.J. Many other excellent books on the Christian duty to be stewards of God's creation have been written; some are available in the bookstore of the Trappist Monastery of the Holy Spirit in Conyers. Catholic Climate Covenant resources can be accessed online and in print. Other great sources include the Atlanta Laudato Si'Action Plan, Project Drawdown, Drawdown Georgia. Movies such as Kiss the Ground provide not only hope, but also simple and effective ways to capture excess carbon and make a difference for the Earth and its inhabitants.



Earth Day Laudato Si´ native tree dedication at St. John Neumann Church, Lilburn Photo - Ivan Varmaloff

### Learn by doing (easy)

Learning by doing is one of the best ways to increase your knowledge about creation care. Getting your hands dirty by helping in the garden, picking up trash to clean up a stream or park and working with family members and neighbors to beautify the grounds at your church or school are great ways to learn. To close out each event, take time to discuss what each person got out of or learned from the activity. Below are some specific ideas for action:

- Hold a fall and spring care of creation family event to work on parish and school grounds.
- Set up a recycling program, including assigning roles to coordinate the efforts among different groups in various areas of the parish or school facilities.
- Offer a Care for Creation Mass in the spring (Earth Day, Laudato Si' Anniversary) and fall (feast of St. Francis).
- Create a vegetable garden including composting, planting, tending and harvesting.
- Hold a "natural light day," where the entire school day uses natural light to conserve electricity.
- Discuss ways to support affordable and clean energy.
- Have teams identify a problem in the environment, research the harm it causes and then design a solution. Each team then presents their solution.
- Have trash-less lunches and package leftover food for students to take home to their families.
- When the school or parish implements a change, such as LED lighting or recycling, study the impact on the people, campus, budget and environment.

#### Form a Creation Care Team

### (moderate)

There are several ways in which schools and parishes can begin to educate their students, staff and parishioners on the most important environmental issues. Both Georgia Interfaith Power and Light and Catholic Climate Covenant provide resources to help you form a Creation Care Team (CCT) or environmental ministry. This CCT would take the lead in not only implementing specific practices, but also in providing environmental education materials for adult education programs, young adult groups, social action committees and other ministries. In schools, students could form green clubs, St. Francis clubs or Laudato Si' clubs to serve as role models and leaders for other students. Green clubs in our Catholic schools can take the lead in creating gardens, composting, recycling and environmental awareness, working with science, religion and art teachers to better put "Laudato Si" into action. "Good education plants seeds when we are young and these continue to bear fruit throughout life," said the Holy Father. [[S flatish leaders can recruit volunteers through announcements from the pulpit, Sunday bulletin, e-newsletter, blog, parish Facebook page or other social media tools.

- Consider recruiting specific people by invitation such as the business manager, priest or deacon, facility manager, garden ministry leader, engineers, educators, communication specialists and others who can contribute to the various areas of the action plan.
- In bringing together volunteers initially, ask them what they can contribute and have them help set the goals for the team. It is important for everyone to feel they are being heard.

#### Host or attend an environmental

### retreat (moderate)

Ignatius House Jesuit Retreat Center offers spiritual retreats inspired by the Spiritual Exercises of St. Ignatius of Loyola, a soldier-turned-saint known for his simple-yet-powerful, five-step method for daily reflection that has been improving lives since the 16th century. The retreat center is located on 20 acres of lush and secluded forest along the Chattahoochee River near Atlanta. Monastery of the Holy Spirit is home to more than two dozen Trappist monks who live in simplicity and prayer in Conyers, Georgia. The monastery is on 2,300 acres of natural area which includes forest, meadows, lakes, streams, wetlands and the Arabia Mountain Heritage Area. Retreats are offered by the monks on site where visitors can come for a period of time and contemplate nature.



St. John Neumann, Lilburn, creation care team members including Pastor Father Sunny Punnakuziyil. Photo - Ivan Varmaloff

Living in an Icon, by Robert Gottfried and Frederick W. Krueger, is a program for growing closer to creation and to God developed by two University of the South professors more than 10 years ago. For more information contact Robert Gottfried at cre@sewanee.edu.



Father Francis Stiteler, OCSO, teaching Master Gardener about butterfly gardening at the Monastery of the Holy Spirit, Conyers. Photo - Ivan Varmaloff

## Build creation care into school curricula

#### (moderate to advanced)

Catholic schools can offer classes in ecology, environmental science, agriculture and other topics. These courses not only prepare students for the growing workforce in alternative energy, climate change adaptation and even growing of food, but give them the scientific and ethical backgrounds they will need to live more sustainably. Alternatively, Pope Francis stresses that "our efforts at education will be inadequate and ineffectual unless we strive to promote a new way of thinking about human beings, life, society and our relationship with nature" [LS 215]. Existing courses in science, business, social studies and theology could be updated to include a more robust treatment of the environment, creation care theology and environmental ethics and econom-ics. In 2016, all Catholic Schools in the Archdiocese of Atlanta built many aspects of "Laudato Si" into their curricula.



Students attend an outdoor class at Our Lady of the Assumption School, Brookhaven. Photo courtesy of OLA School.

### Did you know?

THE TOP FIVE UNIVERSITIES IN GEORGIA ALL OFFER MAJORS IN ENVIRONMENTAL SCIENCE, EARTH AND ATMOSPHERIC SCIENCE, ECOLOGY AND BIOLOGY. THERE ARE NOW AS MANY PEOPLE WORKING IN THE SOLAR ENERGY INDUSTRY IN GEORGIA AS THERE ARE PHYSICIANS IN THE STATE!

#### Create a STREAM Lab

### (advanced)

Many of our Catholics schools, such as St. Jude the Apostle, Queen of Angels and Our Lady of the Assumption have created STREAM laboratories to support an integrated approach to learning. STREAM is an initiative that combines science, technology, religion, engineering, arts and mathematics, helping students to link the Catholic faith to other subjects. The lab at St. Jude is a classroom that connects directly into a greenhouse built in the school's courtyard. Some schools even have "STREAM Nights" to allow families to experience all that the lab has to offer.



St. Jude School STREAM Lab. Photo - Michael Alexander, The Georgia Bulletin

## **CONSERVE ENERGY**

#### FOR PARISHES AND SCHOOLS

Electricity production from fossil fuels is the biggest source of greenhouse gases. Carbon dioxide, a greenhouse gas, is generated when we burn fossil fuels such as coal and natural gas to cool and heat our buildings and gasoline to power our cars. Energy costs are often among the biggest for a parish or school. Laudato Si' discusses the need for "developing renewable and less polluting forms of energy, [and] encouraging a more efficient use of energy" [LS 164]. Pope Francis quotes Pope Emeritus Benedict XVI, who said: "[the] technologically advanced must be prepared to encourage more sober lifestyles, while reducing their energy consumption and improving its efficiency." In 2019, we in Georgia got our energy from the following sources: natural gas (45 percent), nuclear (26 percent), coal (20 percent) and renewables (9 percent). Reducing your energy use and converting to renewable energy such as solar are straightforward ways to reduce your "carbon footprint."

Pursuing energy efficiency for your parish or school can be as easy as installing LED light bulbs, as expensive as replacing your HVAC system, or as complicated as changing the way you are billed for electricity. There are many opportunities at all levels for your parish and school to reduce your energy use. It's important to first understand how your parish or school uses



energy in its buildings and how human behavior impacts energy use. Saving energy saves money, money that can be redirected towards ministries and programs that benefit the larger community including helping the poor to pay their energy bills. Reducing energy use also helps people and the environment by reducing pollution. It's a win-win!







#### Energy Costs, Uses and Sources

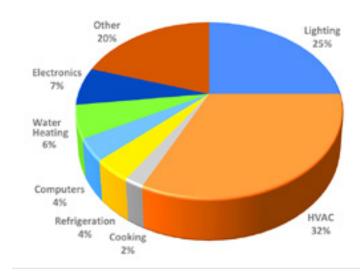
The pie chart represents a typical breakdown of total energy expenditures for a commercial facility. The HVAC system in your parish or school facility accounts for 30 to 35 percent of total energy use. Improving attic insulation may be a simple but very effective solution. Better management of your HVAC system through monitoring use, more accurate programming of thermostats and use of Wi-Fi thermostats can make a big difference.

Lighting is the second largest energy user in most buildings, using 20 to 30 percent of the total energy. You can save considerable energy by turning off lights, converting to LED lights and adding occupancy sensors to light switches.

Water heating and other energy loads can contribute 26 percent or more to your total energy use. If your parish or school uses commercial cooking equipment, your "cooking" category may be greater than two percent.

Many parishes and schools use electricity and/or natural gas. Electricity is used for lighting, all plug-in equipment, air conditioning and sometimes space heating as well. Natural gas is commonly used in water heaters, kitchens and for space heating.

In Georgia, power plants rely on a mix of natural gas, nuclear energy, coal, biomass and renewables to produce electricity.



Source: U.S. Department of Energy

Did you know?
ELECTRICITY GENERATION CREATES
25 PERCENT OF THE GREENHOUSE
GASSES EMITTED IN THE U.S.

NATURAL GAS AND COAL PROVIDE FUEL FOR 62 PERCENT OF U.S. ELECTRICITY GENERATION, SO THE COMBUSTION OF THESE TWO FUELS FOR ELECTRICITY GENERATION CREATES MORE THAN 15 PERCENT OF GREENHOUSE GASSES EMITTED IN THE U.S. (U.S. ENVIRONMENTAL PROTECTION AGENCY)

### Save money while saving the planet

Implementing energy efficiency measures within your parish can reduce greenhouse gases while also saving money. Here are some steps you can take to pursue energy efficiency in your parish or school. For an excellent step-by-step guide to reducing energy in congregations, use the Environmental Protection Agency (EPA) action workbook for Congregations. Energy Efficiency is a high-impact climate solution for Georgia (Drawdown Georgia).

Mary Our Queen Catholic Church Photo - Michael Alexander, The Georgia Bulletin



Make the commitment (easy)

Your parish or school facility personnel are not the only people responsible for managing energy wisely. A successful energy management program requires the engagement and commitment of multiple stakeholders in your community. Your Creation Care Team (CCT) can address energy efficiency in your parish or school.

Include those who have an impact on energy use or will be affected by energy management decisions, such as an individual whose passion is creation care and environmental sustainability. Designate a single individual to coordinate the team and follow up with your parish's progress to promote accountability. It will also be immensely helpful if your team includes members who are empowered to make budgeting decisions. This commitment will be most powerful if it is put in writing, agreed to and shared with your entire community.

#### Arrange for an energy audit

(easy to moderate)

A professional energy audit will help determine how a parish or school uses energy and will provide ideas on the best ways to save energy and money. Georgia Interfaith Power & Light (GIPL), a faith-based nonprofit organization, helps houses of worship and religious schools reduce their energy footprint. GIPL offers professional energy audits and grants to fund energy efficient upgrades for facilities owned by these communities. For those who implement all the suggested improvements, the average energy savings can be up to 25 percent. All parishes and schools in the Archdiocese of Atlanta are encouraged to sign up for a Power Wise Energy Audit through the archdiocese's Laudato Si' Initiative or directly via the GIPL Powerwise Program.



#### Determine current energy performance (easy

Creating a baseline of your current energy use allows you to measure progress and to compare your energy performance with that of others. Several metrics allow experts to benchmark your performance. These metrics are discussed in detail in your Energy Audit Report.



Technician inspecting heating system in boiler room. Adobe Stock Photo

Did you know?
IN 2007, POPE BENEDICT XVI ANNOUNCED THAT VATICAN CITY WOULD BEGIN THE PROCESS OF BECOMING THE WORLD'S FIRST "CARBON NEUTRAL STATE" BY SWITCHING THE PAUL VI AUDIENCE HALL TO SOLAR POWER. IN 2008, 2,400 SOLAR PANELS WERE ACTIVATED; BUT YOU CANNOT SEE THEM FROM THE GROUND. IN DECEMBER 2020, POPE FRANCIS COMMITTED THE VATICAN TO REDUCING NET EMISSIONS TO ZERO BY 2050.

#### Set a Goal (moderate)

Once your Creation Care Team commits to energy efficiency and determines how your current performance stacks up to that of your peers, the next step is to set an energy reduction goal. This goal should be realistic yet challenging. It should be specific in terms of desired energy savings. Establish deadlines. A clear goal will help rally your parish or school community and provide a measure against which you can evaluate your progress. An energy reduction goal usually has several parts:

- 1. A Metric (e.g. total electricity use)
- 2. A Baseline (e.g., from a 2021 baseline)
- 3. A Reduction Amount (e.g. reduce by 20 percent) by a given date.



Solar panels atop Paul VI Hall in the Vatican. Wikipedia, Public Domain

## Create your energy conservation improvement plan

(easy to advanced)

An energy conservation improvement plan spells out how your team will achieve or begin to achieve your energy reduction goal. This is where specific energy conservation measures should be defined. The plan should state who will be responsible for accomplishing each measure, by when and what resources they will have to support them. The timeline for your plan may be three to five years and may contain some of the following actions.

- Make sure your insulation is adequate and properly installed. Insulate, seal and ventilate attics properly. (easy)
- Seal around doors and windows to stop leaks and drafts. Check or replace storm windows. (easy)
- Replace incandescent and fluorescent light bulbs with LED bulbs or fixtures. (easy)
- Install programmable thermostats that limit when the heating or air conditioning comes on. For example, when no one will be at the church, school or home for a few days, program the thermostat to 60°F in winter and 85°F in summer. For times when people are around, try settings of 68°F in winter and 78°F in summer. (easy)
- Program thermostats to limit manual overrides to a few degrees and a few hours, to avoid wasting energy due to someone "forgetting to turn the heat down." (easy)
- Put inside and outside lights on motion/ occupancy sensors and timers. (easy)
- Avoid "phantom loads" or "standby power loads" from your electronics. Turn off electronics when you are not using them. These loads can increase your power bill by 10 percent (per US EPA). Computers, TVs DVRs, battery chargers, printers and many other digital devices use power even when you are not actually using them. Set your computer to shut off or "sleep" after a set period of no use. Plug groups of electronics into power strips and turn off the strips when you are done using the devices. (easy)

- Turn off lights when you leave a room. (easy)
- Don't use hot water if cold water can do the task just as well. This applies to washing hands, washing clothes and many other tasks. (easy)
- Install Wi-Fi thermostats, which while more expensive, connect to the internet and give pastors, principals, facility managers and homeowners much more visibility and control of the HVAC system operation – even when you are away. (moderate)
- Appliances can use an exceptionally large amount of energy. When it is time to replace or buy a new appliance, buy Energy Star appliances such as dishwashers, clothes washers and dryers, water heaters, furnaces and air conditioning units. You can find energy-saving appliances at all appliance retailers. (moderate)
- Replace old outdoor lights with LED lights and fixtures that have light sensors and motion sensors so the lights come on dimly at sunset, brighten only when they sense movement nearby and turn off early in the morning. Or retrofit your existing fixtures by installing motion sensors into light sockets so that the lights come on only when a person (or a deer!) moves nearby. Reducing outdoor lighting also cuts back on "light pollution," helps owls and other nocturnal animals and makes it easier for you to see lightning bugs and stars. (moderate)
- Plant native trees to shade the church, school or home. Shade is the cheapest way to beat the heat. Sturdy Georgia native shade trees like disease-resistant American beech, poplars, oaks, sweetgum and many other varieties can create shade in a few years and add beauty and value to your property. More information on planting trees can be found in the "Use Land Sustainably" chapter of this Action Plan. For help in getting trees to plant, contact Trees Atlanta at www.TreesAtlanta.org. (moderate)
- Replace your old HVAC system. If you have two or more units, replace the oldest, least efficient and most-used ones first. This can make a big difference in your energy use. (advanced)
- If your windows and window frames are in bad shape, consider replacing them. The return on investment may be 10 years, but this update could make a big difference in comfort and energy use. (advanced)



The Southface Institute in Atlanta can provide many ideas and training on how to make your buildings energy efficient. Their impressive learning center and library would be a fantastic place for your CCT to visit. Schools may want to look into their Gooduse resource efficiency grants program.



#### The US Green Building Council Georgia Community

(USGBC) is working to make healthy, sustainable buildings a reality for the people of Georgia within a generation. Their diverse membership includes builders, architects, environmentalists and nonprofits who can provide a wealth of knowledge and industry access at every level. Programs include LEED training, networking, leadership and advocacy. USGBC Georgia works across all sectors including non-profits, private industry and the public sector to advance the four pillars of their mission: sustainability; health and wellness; equity and resilience.



Brian Savoie presenting a check from GIPL for energy improvements to the pastor and church and school leaders of St. Catherine of Siena, Kennesaw. Photo - Brian Savoie

### Seek funding to start

### implementing (moderate)

Your CCT should consider a wide range of sources to cover the costs of these improvements. Examples include: parish or school funds, individual donors, utility efficiency rebate programs, low interest loans and grant programs. GIPL offers matching grants to assist parishes and churches in implementing energy efficient upgrades. These matching grants can be as much as \$10,000 and are awarded based on each congregation's needs and estimated energy

savings. For more, go to http://www.gipl.org.



Stephen Gregory-Augustine McMullen chaired the Green Team Ministry at his Lithonia parish, Christ Our Hope Church. McMullen is pictured by the Wi-Fi or smart thermostat located on the wall between the altar and the seating area for the choir. Eleven additional smart thermostats have been installed around other parts of the parish. Photo by Michael Alexander, The Georgia Bulletin

## Implement your energy conservation improvement plan

(easy to advanced)

Begin taking concrete steps to reduce energy use, based on your Energy Conservation Improvement Plan. The implementation process inevitably involves surprises and demands some flexibility. Be sure to keep CCT members informed of progress and setbacks. Communicate frequently with all stakeholders about your energy conservation plan so they understand the bigger picture and how it relates to changes they see occurring.



Thirty-four solar panels were installed atop Atlanta's Immaculate Heart of Mary Church rectory in July, 2020. The solar panels in this image are on the northwest side of the house, while the remaining ones are on the southeast side. The project was funded through the parish's 2018 #iGiveCatholic campaign. Photo by Michael Alexander, The Georgia Bulletin

#### Go solar (advanced)

When you have done most of the basics, consider putting solar panels on the roof of your church, school or home. Rooftop solar is growing rapidly worldwide and is becoming much more common and acceptable. Today more and more homes and businesses are using brother sun to generate some of their electricity. Solar energy can have a dramatic impact on your carbon footprint.

The price of rooftop solar power systems has plummeted in recent years and continues to decline. In addition, a Federal Solar Tax Credit (as of 2021) can reduce the total net cost of the project. Homeowners and businesses can make direct use of this, but parishes and schools would need to work through a third party to make use of it. When your system generates electricity from sunlight, your power company credits the amount you generate against the amount you use, then bills you for the difference. The key is to size your system to provide the power you need, but not more. To determine if rooftop solar is right for your parish, school or home, look into GIPL's Solar Wise programs. Georgia Power, your EMC or a solar company may also be able to help.

Rooftop solar water heaters are another way to reduce energy use. The sun warms water up before it goes into your water heater tank. Rooftop solar water heaters can immediately reduce your carbon footprint.

DID YOU KNOW?

IN 2015, GEORGIA PASSED LEGISLATION THAT MAKES IT EASIER FOR THIRD PARTIES TO FINANCE, BUILD AND OPERATE SOLAR POWER INSTALLATIONS ON HOMES AND COMMERCIAL BUILDINGS - THUS EASING THE UPFRONT FINANCIAL BURDEN. COUPLED WITH THE 26 PERCENT FEDERAL TAX CREDIT, THIS IS A POWERFUL WAY TO ENABLE THE GROWTH OF SOLAR POWER.



Public school building with solar panels as sun protection. Adobe Stock Photo

# Onverted more than 1,500 four-foot fluorescent (400-watt) with LED lamps. Power rebate in 2018. placed 208 four-foot fluorescent spots and can

#### Energy saving examples in the Archdiocese of Atlanta

Based on energy audits and improvement plans completed in 2017 and early 2018, pilot participants began to make improvements. All locations made improvements, some major. Given that some time has passed, we looked back at the results. Here are some examples of what we found

#### St. Mary's Catholic School — Rome

- lamps to LED in the school and gym.
- In the gym, they replaced metal halide lamps
- Result: 50 percent reduction in energy use over two years.
- Received \$4,180 GIPL grant and \$3,100 Georgia
- Energy savings of \$4,350/year, so far.

#### St. Catherine of Siena Church and School - Kennesaw

• In the sanctuary, narthex and day chapel, relights with LED lamps. Also, replaced all 11 exterior fluorescent wall packs.

EFRESH YOUR HEART, YO

- Upgraded HVAC Direct Digital Control Building Automation System in sanctuary.
- Added temperature/humidity sensors for rooms and Wi-Fi remote management.
- Replaced more than 1,000 fluorescent lamps with LED in administration, ministry hall and education areas.
- Received \$9,250 grant from GIPL in 2018
- \$16,500 energy savings per year even with a rapidly growing parish.



Father Mike Metz speaks to students in the gym of St. Mary's School, Rome. Photo courtesy of St. Mary's School, Rome

### Did you know?

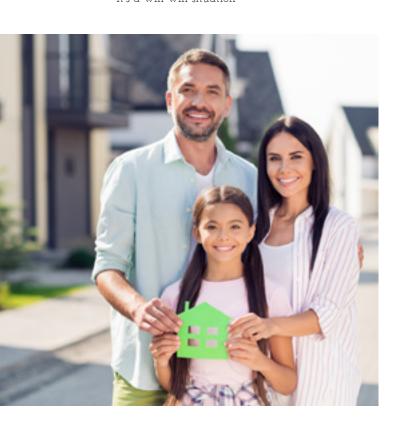
AN LED BULB USES 75 PERCENT LESS **ENERGY THAN AN INCANDESCENT BULB** AD CAN LAST UP TO 25 TIMES LONGER. (U.S. **DEPARTMENT OF ENERGY)** 

AND 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)

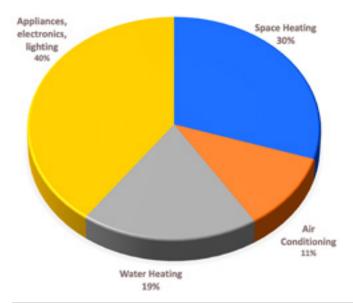
#### **HOMES AND PARISHIONERS**

In most Georgia homes, space heating and air conditioning account for 40 percent of the total energy used. Appliances, electronics and lighting make up 40 percent. Water heating makes up about 20 percent. Just as there are many ways to conserve energy at church and school, there are many effective ways to save energy at home. Whether you live in a house or apartment, a mobile home or a renovated loft, conserving energy will benefit our environment and put money in your pocket.

Pursuing energy efficiency for your home can be as easy as installing LED light bulbs, as expensive as replacing your HVAC system, or as complicated as changing the way you are billed for electricity. There are many opportunities at all levels for your home to reduce your energy use. It's important to first understand how your home uses energy in its and how human behavior impacts energy use. Saving energy saves money, money that can be redirected towards other expenses. Reducing energy use also helps people and the environment by reducing pollution. It's a win-win situation



#### Energy consumption in Georgia homes, by end uses



Source: U.S. Department of Energy

### Make the commitment (easy)

Everyone in the home has a role to play in managing energy wisely. If someone in the home is willing to lead and invest some time, it is very easy to guide the members of your household to make significant improvements in energy efficiency and conservation, thus reducing your energy use and energy costs and the greenhouse gasses created by you and your home.

#### Get a home energy audit

## (easy to moderate) To find out how well you and your home are using

To find out how well you and your home are using energy, get a home energy audit from Georgia Power or your Electric Membership Corporation (EMC). You can also use the on-line Energy Star Home Advisor to get started on your own. And since the biggest issue Pope Francis wants us to consider is our greenhouse gas emissions, you can also calculate your home's carbon footprint as part of your home energy assessment to see where you can save energy and make the biggest impact on climate change.

## Determine your current energy performance and set a goal

Create a baseline of your current energy use so that you may measure progress against these numbers and compare your energy performance with that of similar homes. These metrics are in your energy audit report. Set an energy reduction goal that is specific and realistic yet challenging.

## Create your energy conservation improvement plan

(easy to advanced)

Make an energy conservation improvement plan to spell out how you will achieve or begin to achieve your energy reduction goal. Define specific energy conservation actions and determine what materials, equipment and professional help you will need. There are lots of easy steps you can take to start saving energy at home. Make home energy efficiency second nature. The timeline for your plan may be one to three years and may contain some of the actions listed below.

#### Note: For more detail on the items below, see the list FOR PARISHES AND SCHOOLS above.

- Make sure your insulation is adequate and properly installed. Insulate, seal and ventilate attics properly. (easy)
- Seal around doors and windows to stop leaks and drafts. Check or replace storm windows. (easy)
- Replace incandescent and fluorescent light bulbs with LED bulbs or fixtures. (easy)
- Install programmable thermostats that limit when the heating or air conditioning comes on. Program thermostats to limit manual overrides. (easy)
- Put inside and outside lights on motion/occupancy sensors and timers. (easy)
- Avoid "phantom loads" or "standby power loads" from your electronics. (easy)



- Turn off lights when you leave a room. (easy)
- Don't use hot water if cold water can do the task just as well. (easy)
- Install Wi-Fi thermostats. (moderate)
- Replace old appliances with Energy Star appliances. (moderate)
- Replace old outdoor lights with LED lights and fixtures that have light and motion sensors. (moderate)
- Plant native trees to shade the home. (moderate)
- Replace your old HVAC system. (advanced)
- If your windows and window frames are in bad shape, consider replacing them. (advanced)

### If you need urgent help paying energy bills

THE GEORGIA LOW INCOME HOME ENERGY ASSISTANCE PROGRAM (LIHEAP) IS A FEDERALLY-FUNDED PROGRAM THAT HELPS LOW-INCOME HOUSEHOLDS WITH THEIR HOME ENERGY BILLS. THIS ASSISTANCE CAN REDUCE THE RISK OF HEALTH AND SAFETY PROBLEMS SUCH AS ILLNESS. FIRE OR DISCONNECTION. THE PROGRAM MAY BE ABLE TO PROVIDE HELP WITH PAYING ENERGY BILLS, KEEPING POWER ON DURING AN ENERGY CRISIS AND WEATHERIZATION AND ENERGY-RELATED MINOR HOME REPAIRS. TO APPLY FOR LIHEAP SERVICES IN ANY OF GEORGIA'S 159 COUNTIES. CONTACT YOUR LOCAL COMMUNITY ACTION AGENCY. FOR MORE INFORMATION, VISIT WWW.GEORGIACAA.ORG.







#### Try "simple living" solutions (very easy)

On summer nights, temperatures in most of Georgia dip into the mid-70s. On those nights, instead of spending money to run the air conditioner, why not use your windows and ceiling fans to bring in cool night air? Use screens for your windows. Make sure they can be safely locked to open no more than six inches for cross-ventilation. Cool night air is free.

Consider line-drying some of your clothes in summer. Clothes dryers are usually the most energy-intensive home appliance. Line-drying just a few loads each week can significantly reduce your energy use and save money. Line-drying also saves money on clothes since they last longer if you don't tumble them in a hot dryer. If you live in a subdivision, be sure to check with your homeowners association to see if line-drying is allowed.

### Go solar (advanced)

When you have done most of the basics, consider putting solar panels on the roof of your home. Rooftop solar water heaters are another way to reduce home energy use.

Note: for more detail, see the "Go Solar" section for PARISHES and SCHOOLS above.

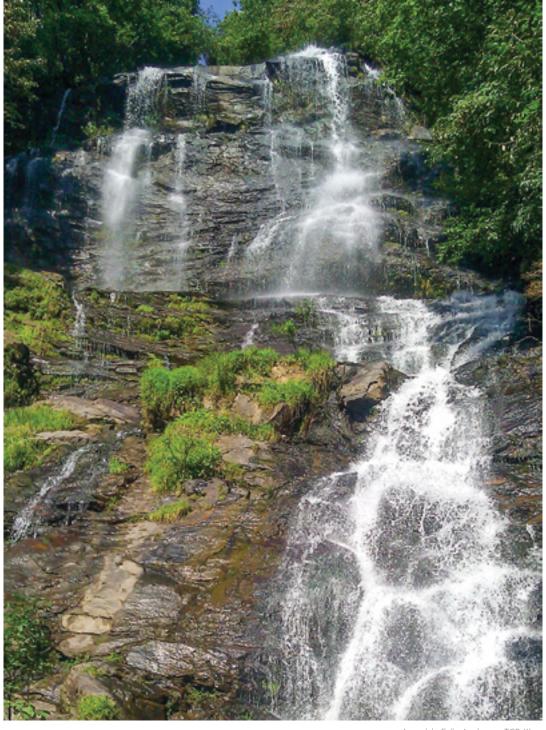
#### Ask about a prospective home's energy use and efficiency

### (advanced)

If you are planning on buying a house, ask your realtor to show you energy efficient homes and ask about a prospective home's energy use and efficiency. If possible, consider buying an Energy Star Certified Home or a LEED-certified Home. (LEED stands for Leadership in Energy and Environmental Design).

Remember the Earth is the only home we have. The words "ecology" and "economy" both come from the Greek word "oikos," which means home. Taking care of our ecology and our economy together is nothing more than good housekeeping.

## CONSERVE WATER



Amicalola Falls. Attribution: TCR-III

#### "ACCESS TO SAFE DRINKABLE WATER IS A BASIC AND UNIVERSAL HUMAN RIGHT, SINCE IT IS ESSENTIAL TO HUMAN SURVIVAL." -Pope Francis



 ${\sf W}$ ater is a "caress of God" [LS 84] which you can experience floating down a Georgia river, splashing in the waves on Jekyll Island or gulping a cool drink on a hot summer day. In most years, Georgia is blessed with abundant water supplies. However, although droughts are a natural part of our southeastern climate, they have become much more frequent and prolonged since around 1980. Pope Francis reminded us that "water supplies used to be relatively constant, but now in many places demand exceeds the sustainable supply, with dramatic consequences in the short and long term" [LS 28]. Here in Georgia, we know this all too well. Furthermore, as our population in north Georgia continues to grow, we will strain our water supply despite its abundance. Pope Francis wrote that access to safe "drinkable water is a basic and universal human right, since it is essential to human survival and, as such, is a condition for the exercise of other human rights" [LS 30]. Water, as a precious part of the material universe "speaks of God's love, his boundless affection for us" [LS 84]. Climate change has already altered our precipitation patterns, so now our rain comes in heavier downpours and more often. Most climate predictions suggest that we may face even more frequent droughts in the future. Thus, part of our duty as stewards of God's creation is to use our water wisely.

Saving water also saves energy. It takes a lot of electricity to treat drinking water and sewage and move water around with pumps. A gallon of water weighs just over eight pounds. The less water you use in your parish or school, whether for drinking, cooking, bathing or flushing, the more energy you save and the more you reduce your carbon footprint. More information on reducing energy can be found in the "Conserve Energy" of this Action Plan.

Water conservation is easy to do. In 2007, then-Governor Sonny Perdue asked north Georgia and the Atlanta region to reduce water use by 10 percent. The Atlanta area reduced its water use by 20 percent through a conservation campaign directed by the University of Georgia Extension and the Georgia Environmental Protection Division and we have not returned to our pre-2007 levels. In fact, per capita water use in the Atlanta area has decreased by 30 percent since 2000 despite the addition of more than one million new residents. Water conservation has now become a culture in Georgia. As our population increases, we must conserve even more. Having experienced several severe droughts in the past decade or so, the Metropolitan North Georgia Water Planning District, which encompasses a large portion of the Archdiocese of Atlanta, has developed some state-of-the-art water conservation tools that your parish or school can use. In fact, your parish can even take the Water Conservation Pledge and join other homes, schools and businesses that are committed to conserving water.



Did you know?

ACCORDING TO THE AMERICAN WATER
WORKS ASSOCIATION, THE AVERAGE
PRICE OF TAP WATER IS ONLY \$0.004 A
GALLON. BOTTLED WATER COSTS NEARLY
300 TIMES MORE AND IS NO HEALTHIER
THAN TAP WATER. OFTEN IT CONSISTS OF
FILTERED TAP WATER!

#### FOR PARISHES AND SCHOOLS

#### Reduce indoor water use by retrofitting kitchen and bathroom plumbing and repairing leaks

### (easy to moderate)

- Parish and school water use occurs in the rectory, lavatories, kitchens, etc. An effective way to conserve water in high-traffic areas is to make conservation "automatic" so that the plumbing does the work. This can be done by retrofitting high-use plumbing fixtures such as toilets and faucets with low-flow fixtures. For church and school lavatories, install faucets with infrared sensors that turn off automatically after a few seconds. Additionally, low-flow toilets, dual flush toilets and low-flow faucet aerators are effective ways to reduce water use and are easily installed. Some communities in Georgia offer rebates for low-flow toilet retrofits.
- In the rectory, as in most homes, most water use occurs in the bathroom. In fact, the toilet and shower are the biggest water users. WaterSense products can help reduce water use significantly. Also, a leaking or running toilet can waste a tremendous amount of water. Make sure to have the toilet and other fixtures checked periodically for leaks. You can do this yourself by adding food coloring to the tank. If color appears in the bowl after 30 minutes, your toilet is leaking. A leaking toilet can waste 200 gallons per day. Lastly, water-saving shower heads and short showers go a long way to keeping water use low!

In the rectory kitchen, use the dishwasher only when it is full. Don't pre-wash the dishes unless you have an older dishwasher (newer ones don't require pre-washing). For the school or church kitchen, consider purchasing an energy and water efficient EnergyStar commercial dishwasher.

## Minimize outdoor water use with water wise landscaping

### (easy to moderate)

Using less water on outdoor landscaping can make an enormous difference. In the Atlanta region, water use increases by as much as 50 percent in the summer as homes and businesses turn on the sprinklers, mostly for watering lawns. Lawns are typically the biggest water user in any landscape. However, using WaterSense practices like planting low-water-use grasses, your parish or school outdoor can greatly reduce water use. For more information on Water Wise landscaping, see the chapter on Use





DID YOU KNOW?

IN THE METRO ATLANTA REGION, THE AVERAGE DAILY WATER USE PER PERSON IS AROUND 102 GALLONS. IN PHOENIX, ARIZONA, IT IS ABOUT 115 GALLONS PER PERSON PER DAY, AND IN BOSTON IT IS 40 GALLONS PER PERSON PER DAY. THE DIFFERENCES ARE MOSTLY RELATED TO OUTDOOR WATER USE.







## Use rain barrels for outdoor watering

(moderate)

Rooftops are great surfaces from which to collect water into rain barrels or cisterns and catching roof runoff means less water flooding into streets, neighborhoods and rivers. In a typical Georgia spring and summer, 10 inches of rain on an average-sized, 1,300 square foot roof would yield more than 8,000 gallons of rainwater and church roofs are usually much bigger than that. In Georgia, there are many local rain barrel resources and distributors.



#### FOR PARISHIONERS

All the water conservation actions mentioned above for parishes and schools can be used at home, but here are a few more specific ways to start using water conservatively.

## Remember the basics (very easy)

- Turn off the water when brushing your teeth.
- A leaking or running toilet can waste a tremendous amount of water. Check toilets for slow leaks. You can do this by adding food coloring to the tank. If color appears in the bowl after 30 minutes, your toilet is leaking. A leaking toilet can waste 200 gallons of water per day.
- Take shorter showers and take showers instead of baths.
- Use a dishwasher and washing machine only when they're full.

"Certain places need greater protection because of their immense importance for the global ecosystem." —Pope Francis

#### FOR PARISHIONERS

## Upgrade your plumbing (moderate)

- Install low-flow shower heads and faucets.
- Toilets are the single biggest water user in most households. Consider replacing your toilet with a low-flush toilet or a dual-flush toilet. Dual-flush toilets have two flush buttons: you push one for liquid waste and both for solid waste. Some communities in Georgia offer rebates for low-flow toilet retrofits.
- When it comes time to replace a dishwasher or clothes washer, invest in a Water Sense dishwasher.
- If you must water outdoor landscaping, invest in water-saving gadgets like an outdoor irrigation timer, drip irrigation systems and other tools available at most local homeimprovement stores.

## Reconsider your landscaping

### (easy to advanced)

Consider replacing some or all of your turf with trees, shrubs, flowers or grasses like Dwarf Mondo grass or sedge grass that don't require water and fertilizer. Using native drought-tolerant plants is called "xeriscaping."

## Use rain barrels or cisterns for outdoor watering

### (moderate)

Collect rainwater from your roof to keep plants watered during drought periods by installing rain barrels or burying a cistern in your yard. For more information, see rain barrel fact sheet. To learn about saving water outdoors, see "Use Land Sustainably."





## PURCHASE WISELY AND RECYCLE



By recycling, St. John Neumann Church, Lilburn reduced their landfill waste by 50 percent. Photo -Susan Varlamoff

n "Laudato Si", Pope Francis calls upon us to adopt a prayerful and intentional approach to the purchases we make and to be mindful of the toll our choices take on God's creation and the world which He has given us. "All of these problems with garbage and industrial waste," Pope Francis wrote in his encyclical, "are closely linked to a throwaway culture, which affects the excluded just as it quickly reduces things to rubbish. Purchasing is always a moral—and not simply economic—act" [LS 206]. This leads us to be more thoughtful about what we purchase and the products we buy and use. We should stay away from products that are disposable in nature and less durable and used only a single time such as plastic bags and water bottles. Avoid toxic chemicals and materials found in household and garden products. Show preference for products made from reusable and recyclable materials, particularly those made from renewable materials. Purchase energy-efficient appliances, vehicles and homes.

We also have a unique opportunity with Pope Francis "to adopt a circular model of production capable of preserving resources for present and future generations, while limiting as much as possible the use of non-renewable resources, moderating their consumption, maximizing their efficient use, reusing and recycling them" [LS 22]. We can achieve these principles by designing out waste and pollution, keeping products and materials in use and regenerating natural systems. We can and should actively seek to purchase products, such as paper, textiles and furniture, that are manufactured from recycled materials and are reusable for a second or third service life or even recycled for manufacture into new products. Similarly, we can trade, exchange and donate office, home and personal items to circulate them within our communities and to others in need. We can advocate to buy products made from recycled plastics to reduce their climate impacts as well as their toxic effect on our environment

Did you know?
PER EPA, IN 2018, APPROXIMATELY 34 PERCENT OR 94

PER EPA, IN 2018, APPROXIMATELY 34 PERCENT OR 94
MILLION TONS OF MUNICIPAL WASTE WERE RECYCLED AND
COMPOSTED NATURALLY. THIS IS COMPARABLE TO TAKING
ALMOST 42 MILLION CARS OFF THE ROAD IN A YEAR.

#### FOR PARISHES AND SCHOOLS

# Implement ecologically based purchasing (moderate)

Develop and ensure ecological purchasing procedures and provisions that correspond to best practices.

These practices could include:

 Purchasing office supplies made from renewable, recycled or recyclable materials.

- Eliminating the use of singleuse plastics and foam-based packaging and food containers in all operations and events.
- Purchasing products (e.g., coffee, chocolate) that are certified as fair-trade and sustainably produced.
- Purchase locally-sourced and produced food and products.
- Share among parishes and schools those companies that are committed to ecological preservation.

#### Conduct waste audit

### (moderate)

Parishes and schools should consider conducting waste audits to identify the composition of what they discard to use as a guide to reduce the purchase of unnecessary paper, supplies, furniture and products. A waste audit will help identify opportunities for minimizing waste and recycling more in parish and school operations. A parish or school creation care team can also learn which materials the parishes or school's waste hauler will accept for recycling. If recycling is not part of the trash pick-up, or if there is no garbage collection for the parish, then find the nearest facility or drop off location through the Georgia Recycling Coalition.

There are several approaches to consider for doing a waste audit, from doing a simple hands-on audit like they do at the **University of Georgia**, to developing a zero-waste culture which requires planning and special tools.

- Office of Sustainability takes a simple hands-on approach to conducting waste audits in the freshman dorms. With the students, they empty the trash bins on tarps in the quad and examine the waste. They make note of what could have been recycled and what should not have been purchased in the first place. The students make a commitment to change their purchasing and recycling habits. This exercise can be repeated after six months to see if there is improvement in buying and recycling. See the TRUE Home Zero Waste Audit guide for useful format in recording and analyzing your results.
- Zero waste culture Consider fostering a zerowaste culture and developing support systems that encourage material reuse and recycling and reduction of pollution in our air, water and land which threaten our public health and ecosystems. A resource to consider is TRUE, a free, zero-waste certification program. TRUE is managed through the U.S. Green Building Council (USGBC) dedicated to measuring, improving and recognizing zero waste performance by encouraging the adoption of sustainable resource management and waste reduction practices. These resources are available for parishes and schools to help quide facility managers in re-designing processes so all resources are valued for their best use focusing on upstream efforts (redesign, reduce and reuse) in addition to recycling. These USGBC resources are helpful, free and easy to use (can later be used to pursue zerowaste certification). Additionally, TRUE offers free webinars, online courses and other learning opportunities.



Photo - Ivan Varlamoff

Some examples of helpful tools and resources available are:

- TRUE Certification Planning Tool and checklist is helpful for starting your zero-waste
  journey by conducting waste audits in order to provide a comprehensive approach
  and measuring progress towards zero waste.
  Audits may include evaluation of container
  sizes, assessment of landfill/incinerator/waste
  to energy materials, review of compliance
  with solid waste and recycling regulations
  and evaluation on the highest and best use
  of materials.
- TRUE Home Zero Waste Audit guide can be used to conduct both on-campus and athome waste audits and to help improve waste management. By conducting a waste audit, parishes, schools and household can make better purchasing decisions and improve recycling.
- TRUE Rating System The rating system was designed by business, institutions and schools and is a zero-waste plan. It walks you through not only the requirements for the certification but, more importantly, strategies, processes, definitions, etc. This is the companion document to the TRUE Certification. See how these tools can be applied to parishes and schools by reading the TRUE Case Study: Chou Hall U.C. Berkeley's Haas School of Business

## Wash dishes for small events



To cut down on copious quantities of waste, wash dishes for events of up to 100 people such as the Knights of Columbus breakfasts, fish fries and funeral meals. You will enjoy the camaraderie as you stand elbow to elbow with fellow parishioners scrubbing, drying and restacking the dishes. St. John Neumann has cut their waste by 50 percent washing dishes.

### Engage students (easy)

Discuss and model the purchasing and consumption behaviors that are consistent with the principles in "Laudato Si" as part of the everyday life of Catholic schools. Engage students in making their school an example of putting these principles into action meals.

"The Creator does not abandon us; he never forsakes his loving plan or repents of having created us. -Pope Francis

### Make recycling a reality (moderate)

There are excellent resources in many surrounding communities to help the parishes and schools make recycling a reality. Resources specifically for religious organizations include the Georgia Recycling Coalition and Zero Waste Church. The archdiocesan sustainability coordinator will encourage pastors, creation care teams, youth groups and other groups to implement and monitor parish recy-cling. In the case of hard to recycle materials typically not accepted by most municipal recycling programs, such as plastic bags and glass, check recycling drop off locations such as the Center for Hard to Recycle Materials (CHaRM) which accepts Styrofoam, cardboard, electronics, paint, mattresses, cooking oil, tires, glass, appliances, books and plastics. Grocery stores such as Publix and Kroger often collect plastic bags. You can find a location near you at Wrap

Recycling Action Program (WRAP) which helps collect and provides material feedstocks for Trex. They use recycled plastic bags to manu-facture a composite deck material used for decking and community park benches.

Parishes and schools should install. promote and monitor recycling bins in daily operations and special events and disseminate information on the recycling programs available through local governments, including special collection events for household hazardous waste and electronic devices. They should consider supporting (volunteering) and cooperating with local governments to conduct periodic collections of electronics, paint, batteries and other toxic materials and even serve as a one day drop off center for hard to recycle materials such as paint.

EACH YEAR, AMERICANS USE 100 BILLION PLASTIC
BAGS THAT REQUIRE 12 MILLION BARRELS OF OIL TO
MANUFACTURE. 100,000 MARINE ANIMALS ARE KILLED
BY PLASTIC ANNUALLY. DISPOSABLE SHOPPING BAGS ARE
TYPICALLY USED FOR LESS THAN HALF AN HOUR.

#### FOR PARISHIONERS

Recycle right (easy)

To avoid putting contaminated frash into recycling containers, parishioners should learn what can and cannot be recycled by visiting the website of your local government that provides your recycling service and by visiting authoritative sources such as The Recycling Partnership. In addition, look at the How2Recycle label used by



many consumer product companies to help customers learn how to recycle their packaging and containers. Some of the most common items that cannot be placed in most curbside (residential) recycling containers—because they spoil the recycling process—are hoses, cords, wires, chains, ropes, plastic bags and pizza boxes with food in them, Styrofoam containers, electronics and batteries. For plastic bags, recycle them on your next visit to the grocery store, if it collects them (see Wrap Recycling Action Program (WRAP)). There are also other opportunities that may be available such as returning excess metal clothes hangers to your local dry cleaner or through working with TerraCycle®.



### Coordinate campaigns to

### persuade. (moderate)

Merchants and businesses can be persuaded to adopt practices that support Pope Francis' "circular economy of materials" if they receive multiple customer requests for a specific sustainability improvement at the same time, as opposed to receiving requests that are scattered and infrequent. Parishes and parishioners could establish a focus for certain months or periods of the ecclesiastical year in which parishes and parishioners can ask merchants they patronize to put specific changes into effect (e.g., providing biodegradable produce bags or only providing a plastic straw by request).



Photo - Susan Varlamot

## Cut down on plastic (easy)

Reducing our individual plastic consumption is a matter of urgency. Microplastics from the breakdown of plastic waste in the environment are being ingested daily by animals and humans alike. We can reduce our household plastic consumption by bringing our own grocery bags and advocating for biodegradable produce bags wherever you shop. Switch out bottled water for a pitcher with a filter for tap water, a simple on-faucet filter or an under-the-counter filter. Opt for products that use minimal or no packaging such as bulk buys which use less packaging than those with smaller or individual portions (and in addition they often cost less). Several grocery stores (i.e., Sprouts) offer bulk goods direct from dispensers. At home, use reusable containers rather than plastic wrap and resealable plastic bags.

## Did you know? AMERICANS INGEST AT LEAST 74,000 MICROPLASTIC PARTICLES EVERY YEAR.



Have fun! Be creative repurposing used items.

#### Shop mindfully

### (easy to moderate)

Each purchase we make has some level of environmental impact on both the earth and its inhabitants. As mindful consumers, we need to consider the impact of every purchase we make, from how it was produced to how it will filter back into the environment. We can avoid retailers who facilitate unfair or illegal work practices including child labor and avoid the use of products that leach chemicals into our air, land, waters and common habitat. Many household cleaners that appear to make our homes fresher and healthier are not only bad for our environment but also for our health. A good resource to research and make informed choices on household and consumer products is Environmental Working Group (EWG) and its consumer guides. Generally, avoid toxic cleaners and opt for biodegradable products for your home and laundry. In addition to these suggestions, there are recommendations on the sustainable purchasing of food in the chapter on "Buy and Share Food Thoughtfully."

#### Live simply

### (easy to moderate)

"Laudato Si" calls us to live more simply. It can be hard to insulate ourselves from the materialistic noise, especially in the United States, which has more retail store space per capita than any other country in the world. Many of the things we purchase were designed to make our lives easier and give us more free time. That has not really panned out. Simple living has measurable health benefits. It saves money, reduces stress, minimizes clutter and makes time for the profoundly important things like gathering with family and friends and enjoying the bounty of the earth. Remember that our purchases have an environmental impact when they are manufactured and again when they are discarded. Live simply so that others may simply live. A first step is to get in the habit of looking at your purchases socially and environmentally by unsubscribing from the many emails and catalogs that clog our inboxes and mailboxes, often sidetracking us from real communication. Bookmark Catalogchoice.org and unsubscribe each time a new catalog arrives; spend the time in the check-out line unsubscribing from commercial emails.



#### REFRESH YOUR HEART, YOUR SOUL, YOUR WORLD

## Enrich lives through genuine social sharing

(easy)

You can often borrow something you use infrequently by simply asking a friend or neighbor. People are glad to assist and you can reduce your carbon footprint while building relationships and a sense of community. In the same way, you can offer possessions you no longer need to several organizations that will find new users for them (e.g., St. Vincent de Paul Society, Goodwill, American Kidney Fund, Red Cross, Salvation Army, Value Village or the clothing closet at your local parish). These organizations serve communities in need and some will even pick up at your home. For used clothing, donate to re:loom, for gently used business attire, look to Dress For Success; and for household items and building materials, go to Life Cycle Building Center, Habitat for Humanity or Community Forklift (salvaged building & landscaping materials, appliances and tools) or simply offer it on your local listserv (as appropriate).

"CHRISTIAN SPIRITUALITY PROPOSES
A GROWTH MARKED BY MODERATION
AND THE CAPACITY TO BE HAPPY
WITH LITTLE. IT IS A RETURN TO THAT
SIMPLICITY WHICH ALLOWS US TO STOP
AND APPRECIATE THE SMALL THINGS,
TO BE GRATEFUL FOR THE
OPPORTUNITIES WHICH LIFE AFFORDS
US, TO BE SPIRITUALLY DETACHED
FROM WHAT WE POSSESS AND NOT TO
SUCCUMB TO SADNESS FOR WHAT WE
LACK" [LS 222].



## BUY AND SHARE FOOD THOUGHTFULLY

Did you know?

ONE IN EIGHT PEOPLE IN GEORGIA FACES HUNGER. (FEEDING AMERICA)

#### FOR PARISHES, SCHOOLS AND PARISHIONERS

tood sustains life. It nourishes our bodies and gives us strength to work, play, pray and enjoy our families and friends. A shared meal, like breaking bread at communion, connects us emotionally and spiritually to one another. Holidays such as Christmas, Easter and Thanksgiving revolve around memorable meals often cooked from recipes handed down through generations. Birthdays, weddings, funerals and the sacraments of baptism, Holy Communion and confirmation are additional occasions when we gather the family around food. Parishes host many events, from harvest festivals and Knights of Columbus breakfasts to pot-luck dinners and funeral luncheons. Many of us can choose foods that are less damaging to the environment, that inflict less cruelty upon animals and that uphold the dignity of workers. Others, however, have little choice because they live in "food deserts" where accessing nutritious foods is a challenge. Pope Francis reminded us in "Laudato Si" that "Each community can take from the bounty of the earth whatever it needs for subsistence, but it also has the duty to protect the earth and to ensure its fruitfulness for coming generation" [LS 67]. Our food system also reflects inequities in society. Too often parishioners and our fellow humans struggle to know where their next meal comes from. At a gathering of the world's poorest and most vulnerable, Pope Francis said that "Hunger is criminal. Food is an inalienable right." There is much we can do to address these inequities using the principles and vision of "Laudato Si".



#### Buy locally grown and prepared food

(easy to moderate)

When possible, purchase vegetables, fruits, meats and cheeses grown locally in Georgia by looking for the Georgia Grown logo. Food can travel sometimes 1,500 miles to get from farm to table, thus, purchasing locally reduces greenhouse gases emitted during transportation. Agriculture is Georgia's largest industry and our state is the nation's leading producer of chickens, peanuts, pecans and blueberries. A University of Georgia study states that "if every Georgia household bought \$10 worth of food from state farmers, it would add \$1.9 billion dollars to the state economy." So, support our local farmers.

You can also join the hyper-local food movement by frequenting Metro Atlanta Farmers Markets that highlights food grown right here in metro Atlanta. Not only does buying locally support the livelihoods of local farmers, but it also guarantees that food is grown in the appropriate season and in the right conditions optimizing nutrition and putting less strain on the environment. To extend the buy-local concept further, choose locally-owned restaurants when dining out or ordering food for parish, school and home events.

## Buy organic and humanely grown food if possible

### (easy to moderate)

It is true that fruits and vegetables grown decades ago were much richer in vitamins and minerals than the varieties most of us get today. The root of the problem is soil depletion. Modern intensive agricultural methods using man-made fertilizers and pesticides have stripped increasing amounts of nutrients from the soil in which we grow food. Most synthetic fertilizers are manufactured from fossil fuels, which emit greenhouse gases and can seep through the soil into the groundwater, further stressing the environment.

Organic produce is free from chemicals that are harmful to workers and to the environment. Unfortunately, it is often more expensive and therefore an unaffordable luxury for many households. If your budget allows, choose at least some organic produce and consider reducing the amount of meat you eat so that what you do buy is raised in a way that you can feel good about. You can find out how your food was cultivated by checking a product's label to see if it is organic or naturally grown. Georgia Organics produces the Good Food Guide, a list of farms, markets and restaurants that feature Georgia-grown organic food.



### REFRESH YOUR HEART, YOUR SOUL, YOUR WORLD

### Bonus:

Have you ever taken your "Foodprint?" Like learning your ecological footprint, which assesses the impact your daily mode of transportation or the type of home you live in have on the environment, your "foodprint" assesses the impact you have on the environment with the way you eat. Whether it's a salad, a hamburger or your morning bagel with your favorite cup of joe, getting your meal from farm to plate has an effect on the land, on the welfare of animals, on farm workers and on public health. Foodprint.org

### Improve access to nutritious food

### (moderate)

Food deserts in cities like Atlanta are more common in low-income neighborhoods. Food deserts are characterized by a lack of fresh food usually found in supermarkets. Churches and schools within these communities can grow food in gardens on the parish and school properties or contribute volunteers to a nearby community garden in exchange for fresh produce. Your Georgia Cooperative Extension offers free workshops on growing food in community and school gardens. Consider holding a workshop as part of an Earth Day program to teach parishioners how to grow food in their church and school yards and backyards.

# Grow food in your backyard for you...and your neighbor

(easy to moderate)

The ulfimate fast food can be grown just steps from your back door since, in most of Georgia, food can be grown year-round. For help with how to plant, when to plant and what to plant, contact the **University of** 





St. Matthew Church in Tyrone produces 8,500 pounds of food each year in addition to chickens and eggs.

Photo - Steve Lefebvre

Georgia Extension agent in your county. Extension agents, master gardeners and Extension publications can assist both novice and advanced gardeners in growing fruits, vegetables and even chickens. Also, how about growing enough to help someone in need? Plant a Row started in Anchorage, Alaska, when garden columnist leff Lowenfels asked readers to plant an extra row of vegetables to donate to the local soup kitchen. When your food is ripe, take whatever you don't need and donate it to a local food pantry.

### Try more meatless meals



Meat production consumes large amounts of grain and water, taking approximately 1,850 gallons of water to produce a single pound of beef, as opposed to just 39 gallons of water to produce a pound of vegetables. Meat production can lead to massive deforestation for cattle grazing in critical bioregions such as the Amazon rainforest. Skipping meat one day a week is then not only good for you but fantastic for the planet. Forty countries and counting have signed on to Meatless Mondays, a global movement that encourages people to adopt this habit. When you do buy meat, look for products labeled as free-range, grass-fed or humanely raised.

# Model healthy and just purchasing (moderate)

DID YOU KNOW:

IF 50 PERCENT OF THE WORLD'S POPULATION RESTRICTS THEIR DIET TO 2,500 CALORIES A DAY AND REDUCES MEAT CONSUPTION OVERALL, AT LEAST 26.7 GIGATONS (A GIGATON IS 1,000,000,000 TONS) OF GREENHOUSE GAS EMISSIONS COULD BE AVOIDED BY 2050, ACCORDING TO THE UNITED NATIONS.

Reinforce ethical eating principles in parish, school or other settings by serving local foods, vegetarian and plant-based options and fair-trade coffee, tea and chocolates. Educate parishioners about how their food choices impact our sisters and brothers in other parts of the world, such as children laboring in cocoa fields in Africa and indigenous communities in South America who are losing large swaths of the Amazon rainforest to plantations producing the palm oil found in many processed foods and cosmetics.



### Fast during Lent

### (moderate)

On Lenten fast days, feature a parish meal consisting of a bowl of rice, the staple in many developing countries. Then donate the cost of a full meal to the Catholic Relief Services (CRS) Rice Bowl. Seventy-five percent of the money supports CRS' programs around the world and 25 percent supports hunger and poverty programs in local communities. Additionally, consider fasting one day per month on the holy day of your choice. Fasting is an ancient and integral part of our faith tradition and studies have shown that periodic fasting is healthy for you.

### Compost food scraps

### (moderate to advanced)

Rather than tossing corn cobs, banana and potato peels, apple cores and those moldy leftovers into the garbage destined for the landfill, compost them. While man-made fertilizers contain synthetic chemicals that strip the soil of nutrients, compost, when added to the soil, adds back nutrients, reduces the need for pesticides and increases the soil's water holding capabilities. It also saves money on potting soil and reduces trips to the retail gardening center.



Don't waste food. (easy)

Food is the single largest category of material placed in municipal landfills and 40 percent of that is edible. Wasting edible food not only affects our pocketbooks but affects the environment since, as it rots in the landfill, in the absence of oxygen, food waste is a significant source of methane gas, a greenhouse gas twenty times more potent than carbon dioxide. We can avoid wasting food by not over buying, properly storing foods and eating leftovers before they become scientific experiments. Avoid tossing edible food into the trash. If you have some vegetables and fruits that are past their prime, toss them in a blender with a little local honey and presto—a nutritious smoothie. When those parish meals are finished, take home leftovers or donate them to the food pantry or someone who can use them.

### Backyard Composting

Perfect if you have outdoor space.

Can take a wide range of food scrap types (except meat and dairy).

### Vermicomposting (high nutrient compost)

Ideal for apartment dwellers since worms need a certain climate/temperature, will not always thrive outdoors.

Can only process fruit and veggie food scraps.

### Community Composting

#### (locations coming soon in Atlanta)

Food scraps may be processed for you when you drop-off them off or you may have to volunteer to help with the processing.

Often, finished compost goes into a garden onsite to produce more community food.

Want to learn more about composting? Take a Master Composter class offered through the University of Georgia Extension in your county.



# Did you know? THE RATE FOR RECYCLING PLASTIC BOTTLES IS 29 PERCENT.

### Avoid drinking bottled

### water (easy)

Instead of supplying plastic bottled water at events, ask parishioners to bring their own cup or water bottle. You can also supply cups made of recyclable material and pitchers of tap water. Producing bottled water uses a great deal of water and an enormous amount of energy — the equivalent of what it takes to fuel 1.5 million cars annually. Plastic is also made from petroleum thus further complicating our efforts to combat global climate change. Water bottles are major contributors to plastic pollution. Bottled water is also far more expensive than tap water and it is no healthier. Ironically, more than one-third of all bottled water sold is filtered tap water.

### Shop carefully and use cloth

### bags (easy to moderate)

When stocking up on groceries, choose items with less packaging. Try to buy in bulk and freeze or package food in small portions to reduce cardboard and plastic wrapping. And since plastic grocery bags are a major source of litter, get in the habit of using cloth or recycled fiber bags to pack your groceries.

# Use sustainable food storage receptacles

### (easy to moderate)

Since plastic storage bags are also a major source of litter, when storing your leftovers at home, invest in sturdy reusable options like glass receptacles. If glass can't be used, try reusable silicone storage bags. You may think plastic containers are recyclable, unfortunately, the recycling rate for all plastics ever created in the world hovers at nine percent according to National Geographic.

### Support or use the local food pantry or food bank

### (moderate)

The United States bishops have said greater attention must be given to the "needs of the poor, the weak and the vulnerable ... We need to strengthen the conviction that we are one single human family." Churches often have many programs including food pantries to reach out to those in need. Filling them with nutritious and locally-produced food is best for them and the environment. All our parishes and schools can offer educational programs about food insecurity in the area and advocate for policies that improve food access and nutrition. Parishioners can also donate to, or volunteer in the food assistance programs of such as St. Vincent de Paul or your local food pantry throughout our region.



Many communities and churches manage food pantries to help low-income families, children, immigrants, seniors and others who lack the resources to afford enough food to sustain a healthy life. Many do this in partnership with the Atlanta Community Food Bank. Together they provided 67,000,000 meals to metro Atlanta residents in 29 counties in 2019-2020. You can donate to the Atlanta Community Food Bank or find one of its 700 distribution local partner organizations near you to support.

### Volunteer with a food rescue organization

### (moderate to advanced)

Food rescue, also called food recovery, is the practice of saving edible food that would otherwise go to waste and distributing it to local emergency food programs. This recovered food comes from places such as restaurants, grocery stores, produce markets or dining facilities and is edible, but for one reason or another, is not sellable. Products past their "sell by" dates or are imperfect such as a bruised apple or a misshapen carrot are donated by grocery stores, food vendors and restaurants. Other times, the food is unblemished, but restaurants may have made or ordered too much. They may also have scraps of fish or meat that were byproducts in food preparation. Enter your food rescue organization that saves food from the landfill that took precious energy, water and human labor to create. It is estimated that 21 percent of the nation's annual water usage and 10 percent of our annual energy outputs go into growing food that never gets eaten. Most food rescue organizations rely on volunteers to sign up for scheduled routes to collect good, edible food and then deliver it to non-profit organizations or neighborhoods that feed hungry residents. If you cannot volunteer, these organizations always appreciate a modest donation to further their work.

Volunteer | Donate

Change to Humanity change to humanity.org

Umi Feeds umifeeds.org

Free Fridge free99fridge.com

Second Helpings live-second-helpings-atlanta.pantheonsite.io



Change to Humanity volunteers distribute food from Whole Foods to needy communities. Photo - Giselle Malluche



Young volunteers pack food donations - Adobe Stock Photo

### Give thanks

(very easy)
The Holy Father reminds us to say grace before meals. "I ask all believers to return to this beautiful and meaningful custom. The moment of blessing, however brief, reminds us of our dependence on God for life: it strengthens our feeling of gratitude for the gifts of creation: it acknowledges those who by their labors provide us with these goods" [LS 227].



### Apply for grants

### FOR COMMUNITY GARDENS:

Food Well Alliance foodwellalliance.org

### FOR SCHOOL GARDENS:

Captain Planet Foundation captainplanetfoundation.org

Gwinnett County Master Gardener Association gwinnettmastergardeners.com



School garden funded by the Captain Planet Foundation Photo - Susan Varlamoff



# MAKE SMART MOBILITY CHOICES

he ability to move freely and easily in the vast state of Georgia allows us to thrive at work, home and play. Whether we commute to work, bring our children to school or a nearby park, shop or visit the doctor or even water ski on one of the state's many lakes, we need sustainable mobility. Public transportation, airplanes, trains, cars, trucks, bikes, motorcycles, scooters, boats and carpools carry us from one place to another. Unfortunately, transportation is the largest contributor to greenhouse gases and to air and sound pollution. Although Pope Francis has never been to Georgia, he could have been describing Atlanta when he wrote: "many cars, used by one or more people, circulate in cities, causing traffic congestion, raising the level of pollution and consuming enormous quantities of non-renewable energy" [LS 153].

Some of our communities too often bear the brunt of polluting transportation infrastructure such as highways and diesel bus garages. The archdiocese, parishes and schools can advocate for safe, accessible, affordable and equitable mobility solutions. This includes supporting the transition from diesel to zero-emission school buses to protect children from toxic exhaust and minimizing forced relocation of low- and moderate-income residents and businesses along new public transit routes.

During the period of COVID-19, we learned to meet, attend Mass and bible study through video conferencing. This technology, although not ideal and not capable of replacing face-to-face interactions, can be used in many instances to avoid long distance travel that spews greenhouse gases into the atmosphere.

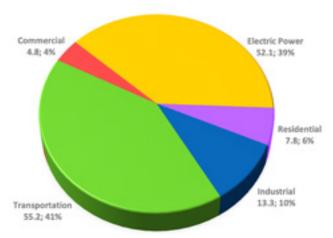
Being disconnected from transportation for reasons such as not living along public transportation routes, or the inability to afford a car prevents upward mobility. Contained within this chapter are ways we can provide transportation equity for the poor.

#### FOR PARISHES AND SCHOOLS

Cars and trucks are important and valuable parts of our American culture. Transportation is not only a large source of greenhouse gases, but it is a large source of carbon monoxide, a more potent greenhouse gas than carbon dioxide. This is a result of burning gasoline and diesel fuel in our engines. How much we drive and the type of vehicle we drive has a big impact on our carbon footprint. Sadly, around Atlanta, most of us drive alone and as Georgia's population is expected to grow by 4.6 million people by 2030, mostly in the Atlanta metro area, traffic will make our commutes and our air pollution even worse than they are now. As Pope Francis reminds us: "advances have been made in the production of non-polluting energy and in the improvement of public transportation. These achievements do not solve global problems, but they do show that men and women are still capable of intervening positively" [LS 58].

#### ENERGY-RELATED CO<sub>2</sub> EMISSIONS BY SECTOR - GA STATE 2018

Million metric tons of energy-related carbon dioxide; percent of total



# Buy an electric or hybrid car for your pastor and parochial vicars

(advanced)

Most pastors and parochial vicars live close to their parishes and travel around the archdiocese for home and hospital visits, meetings and retreats. And they drive to go shopping, socialize and relax like the rest of us. Instead of providing the priests with fuel-inefficient cars, parishes who buy cars for their pastors could purchase an all-electric car, a gas-hybrid car or an "extended-range electric" car that has a gasoline engine if the battery is used up. Newer models of many of these cars are bigger, have greater engine power and a longer range than earlier models. They not only have lower CO2 emissions, but can save tremendous amounts of money on gas.

Pope Francis, who speaks out on environmental issues, will trade in his Popemobile for a new model running entirely on battery power. The pontiff met with the founders of the California-based electric car startup Fisker who provided him with renderings of the vehicle they plan to deliver during the fourth quarter of 2021.

There is a US Department of Energy fuel economy guide to help your parish decide which car would be best for your priests.

### Install electric car charging stations at churches and schools

### (advanced)

If the pastor drives an electric car, he will need to plug it in at night to recharge the batteries. But why not encourage parishioners, teachers and students to drive electric cars to work and church by installing a few charging stations? As these tend to be near buildings that can accommodate them, they can also have the best parking spaces! Georgia Power can install electric charging stations, including special billing rates for electric car users.

# Provide premium parking at churches and schools for alternative fuel, electric, hybrid cars and for carpoolers (moderate)

Aside from parking spaces necessarily set aside for the handicapped and the elderly, who doesn't want to park as close to the church or school as possible? Depending on available parking space, parishes could set aside a row of spaces reserved for people who drive hybrid, electric or alternative-fueled vehicles and even carpool. Rewarding parishioners who are committed to the spirit of Laudato Si' is one small gesture that can change hearts and minds.





# Encourage the use of public transportation and carpools

### (moderate)

Facilities throughout the archdiocese can encourage use of public transportation by posting information about nearby bus and train stops. When appropriate, parishes and schools can help arrange carpooling groups to reduce the number of miles driven to attend Mass. classes and other functions.

DID YOU KNOW?

IN 2005 ALONE, U.S. DRIVERS
WASTED 4.2 BILLION HOURS AND
UP 2.9 BILLION GALLONS OF FUEL
SITTING IN TRAFFIC. THAT TRANSLATES
INTO ALMOST 60 BILLION POUNDS
OF GREENHOUSE GASES PUT INTO THE
ATMOSPHERE JUST BY TRAFFIC
CONGESTION (U. S. ENVIRONMENTAL
PROTECTION AGENCY)!

#### FOR PARISHIONERS

### Measure Your Transportation Carbon Footprint

(easy)

As stated in the introduction, transportation is one of the largest contributors to greenhouse gas generation. At <a href="https://www.myclimate.org">www.myclimate.org</a> you can check your mobility carbon footprint. Once you know your carbon footprint, consider the following ways to reduce it.

# Remember the simple things about fuel efficiency

(very easy)

You don't need to warm your car in the morning unless it's a very old model. Don't idle while waiting to pick someone up or waiting outside a store. Avoid using the drive thru. Don't drive around the parking lot looking for a space; pick the first one and get a little exercise. When approaching a red light, start coasting so that when it turns green, you are already moving. Combine shopping trips into one. Keep your tires properly inflated and your engine tuned up. Properly inflated tires will help fuel efficiency.

# Carpool or take public transportation whenever possible

### (moderate to advanced)

There are so many benefits to carpooling or ride sharing. It saves money, gives you more time to read, listen to music, chat or pray. It also cuts down on traffic, which is what makes our commutes so miserable. Carpooling with friends and co-workers strengthens personal bonds in our increasingly tuned-out world. The Georgia Clean Air Force helps Georgians reduce their commute, save money, locate charging stations and improve the quality of our air around Atlanta and north Georgia.





THE ELECTRIC VEHICLE TRANSITION
HAS A GREAT POTENTIAL BENEFIT TO
BLACK AND LATINO COMMUNITIES,
WHICH ARE DISPROPORTIONATELY
AFFECTED BY FOSSIL FUEL POLLUTION
SINCE THEY LIVE CLOSER TO ALL
REFINERIES AND PETROCHEMICAL
PLANTS. (MARKETWATCH)

### Consider driving an electric, gas-hybrid or alternatefueled car or at least a highly fuel-efficient car

### (moderate to advanced)

When buying a car or truck, always consider its gas mileage, carbon footprint and environmental footprint. Buy consistent with your true needs. Driving a fuel-efficient car that minimizes our impact on the environment identifies us as someone who cares about the future and who identifies with the spirit of "Laudato Si'." Fuel-efficient cars also save money on gas. Learn as much as you can about fuel efficiency standards and which cars and trucks rate the highest, so that when you shop for a new car or truck, you can find the one that says you are a snazzy driver and someone who cares about creation.



# Be mindful of your vacation and business travel and its carbon footprint

### (moderate to advanced)

Americans need to take more vacations. However, be careful of your carbon footprint when traveling for pleasure or work. Air travel is the most CO2 intensive way to travel, so unless you are going overseas, consider taking a train. Try a local vacation to the coast of Georgia or Florida, or the mountains of north Georgia, North Carolina or Tennessee. If you need to travel by plane, one third of airline companies provide ways to offset your flight. The easiest option is to offset directly with the airline when you book your flight. You just pay an extra fee on top of the flight cost which is donated to a carbon offset scheme. Consult The traveller's guide to carbon offsetting your flights online at www.ontheluce.com for additional options for airlines not offering offsets. When you arrive at your destination, especially if it is a big city like Miami, New York, Chicago or Rome, use public transportation.

# Advocate for green and equitable transportation

### (moderate)

According to Drawdown Georgia, Georgia has nearly 90,000 miles of public roads. In 2018, vehicles accounted for 41 percent of the state's CO2 emissions — our single largest source. However, a Harvard Study (TheImpactsofNeighborhoodsonIntergenerational

Mobility) found that transportation is the single strongest factor in escaping poverty: more important than crime, student test scores or the prevalence of single-parent households. In Georgia, economic mobility is amongst the lowest in the country and is often tied to transportation. Less than a quarter of jobs are accessible via public transportation, severely limiting access to higher opportunity jobs for the poor. Households in poverty spend a high proportion of their income on transportation. Higher purchase prices of vehicles, higher fuel and insurance costs and transit fare hikes all pose a financial burden to people in poverty. The National Household Travel Survey states that transportation is the second highest American household expenditure, exceeded only by housing costs.



Andriy Blokhin - stock.adobe.com

### Help for those in need.

MANY WHO CAN'T DRIVE OR AFFORD A CAR FACE LONG COMMUTES TO JOBS VIA PUBLIC TRANSIT AND THIS WAS ONLY EXACERBATED DURING THE COVID-19 PANDEMIC. ST. VINCENT DE PAUL PROVIDES A VARIETY OF ASSISTANCE FROM MARTA CARDS TO ASSISTANCE WITH CAR REPAIRS, AUTO INSURANCE AND CAR PAYMENTS TO KEEP PEOPLE ON THE ROAD TO WORK. ASSISTANCE IS PROVIDED BY CONTACTING A LOCAL CONFERENCE AND WORKING WITH A CASEWORKER.



### Try walking and biking

### (moderate)

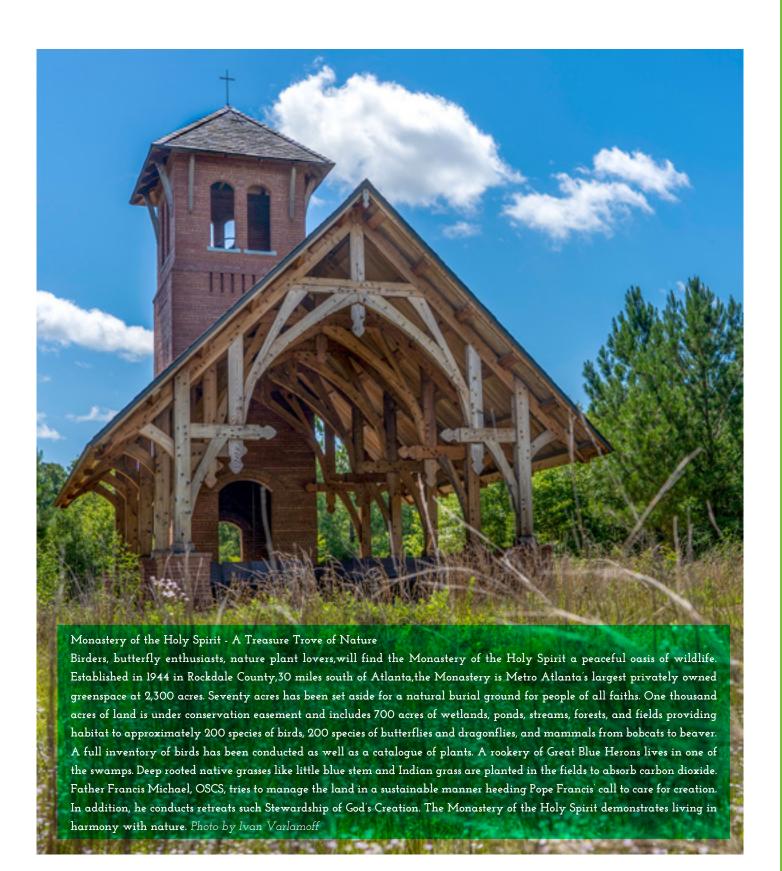
Bicycling and walking to Mass, church meetings, work and school is fun, provides exercise and is gentler on our environment. Facilities throughout the archdiocese can install bike racks and promote a culture that accepts people arriving for Mass and meetings in casual clothes and footwear. Arrange cycling and walking pairs or small groups so everyone feels safer with these options, especially after evening meetings.

# Re-think meetings and travel (easy to moderate)

During the COVID-19 pandemic we learned that we could meet effectively by phone or videoconference. While fostering relationships through in-person gatherings is ideal, those with limited transportation options and even the elderly benefit from videoconferencing. Telepresence is defined as the use of virtual reality technology, especially for remote control of machinery or for apparent participation in distant events replacing travel. During the height of the COVID-19 pandemic, gatherings were severely limited or banned. This created greater reliance on video-conferencing with programs like Zoom, GoTo Meeting, Teams, Google Hangout,

WebEx and other programs and apps as alternatives for face-to-face meetings and seminars. This technology was employed for classroom lessons, Mass, meetings, bible study, etc., as a superior alternative to faceless conference calls. Android and iPhone users can connect with a click of their cell phones with their respective apps Duo and FaceTime. As the pandemic winds down, the new normal for convenings has been established. For more information about mobility check the website of Laudato Sí Initiative partner Drawdown Georgia.





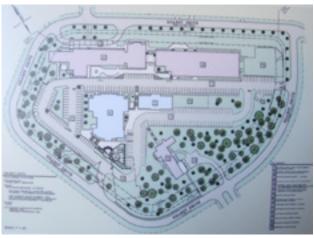
# USE LAND SUSTAINABLY

The Archdiocese of Atlanta is located in the northern half of Georgia with property totaling

more than 2,300 acres. In addition, the Monastery of the Holy Spirit owns another 2,300 acres. As of 2021, there are 108 parishes and missions and 18 archdiocesan Catholic schools, involving 1.2 million Catholics occupying this land. If managed well, this land can help mitigate climate change, feed the poor and serve as biological reserves for wildlife and habitat for pollinators which are sadly in decline. As parishes and schools determine how best to use their land and landscape on their property, they can consider restoring ecological habitats using native plants, cultivating vegetables and fruits in a church or school garden for a food bank and creating spaces for meditating on God's creation.

In addition to landscaping, parishes must be mindful of managing stormwater running off their properties. Stormwater results when rain falls on unnatural or hard surfaces such as sidewalks, building roofs and church parking lots and is not able to soak into the ground. These man-made surfaces have been engineered to quickly divert rainwater into street drains. However, the rainwater becomes polluted with grease and oil from vehicles, plastic trash like water bottles and Styrofoam tossed on the ground, cigarette butts and other wastes dropped on the pavement. This combined waste stream is referred to as stormwater pollution or "runoff." This runoff is carried from street drains to the nearest creek, stream or sewer, where it is dumped without treatment. During heavy rainfalls, small creeks and streams can quickly turn into torrents, which is one of the primary causes of life-threatening flash floods in urban areas. We are all connected to one another. What we do affects those downstream of us. Isn't it time we change our behavior so that we can manifest love and concern for those downstream of us?

In his magnificent song, Canticle of the Sun, St. Francis of Assisi understood and appreciated our connectedness to nature with his words, "Praise be to you, my Lord, through our Sister Mother Earth, who sustains and governs us and who produces various fruit with colored flowers and herbs." By communing



Our Lady of the Assumption church and school Land Use Plan

with nature, we understand our reliance on creation and learn how fragile it is. We are called to be good stewards of the earth so our natural resources can support future generations of life.

### FOR PARISHES, SCHOOLS, AND HOMES

# Plan your land use to best serve God, nature and the poor

### (moderate to advanced)

Many parishes and schools have developed a Master Plan for the purpose of future development, but this plan should also include a master site plan indicating how the full site can be used. This plan should comprise the following: buildings; streams and ponds; parking lots and roads; playgrounds and ball fields and lawns and gardens. The plan might also consider space and facilities for the following: floodplains (limit development), outdoor Mass, outdoor meeting room, outdoor classroom or laboratory, prayer garden, outdoor Stations of the Cross, vegetable garden, natural forest and grassland or a ground-mounted solar array. Planners should give careful thought to maximizing the land to serve God, nature and the poor, whether it is extending the forest to increase the width of a wildlife corridor, planting trees to give shade and absorb carbon dioxide, adopting the stream running through the property to protect its environmental integrity, farming to provide food for the poor or creating a garden where parishioners can seek God through nature. Contact Catholic Construction Services, Inc., for suggested architects to help with this planning.

"Care for nature is part of a lifestyle which includes the capacity for living together and communion. -Pope Francis

# Connect the church, school and home landscape with

### urban forests. (moderate)

If your church, school or home is adjacent to or contains an urban forest or woods, connect your landscape with it. Maintain trees on your property and if possible, mimic the nearby wooded property on your landscape. Creating a wildlife corridor is essential for wildlife and bird migration and movement.

### Plant trees. (moderate)

In "Laudato Si'," Pope Francis recommended planting trees. Trees are the lungs of the earth. They "inhale" the carbon dioxide produced by burning fossil fuels and "exhale" oxygen. When trees are strategically placed, their shade cools us, our homes and our communities. They reduce the pollution of our rivers and lakes by capturing and storing rainfall in the canopy and promoting infiltration of stormwater runoff into the soil and groundwater with their roots and leaf litter. They reduce soil erosion, moderate the climate of cities, provide windbreaks and purify the air we breathe and the water we drink. Trees provide habitat for a myriad of creatures from lightning bugs and butterflies to birds and squirrels. Consider selecting a native oak for your parish or home landscape. The University of Georgia Extension publication Native Plants can help you select from a variety of trees for your yard.

DID YOU KNOW?

IN A YEAR, ONE MATURE TREE WILL

ABSORB MORE THAN 48 POUNDS

OF CARBON DIOXIDE FROM THE

ATMOSPHERE AND RELEASE OXYGEN IN

EXCHANGE. SOURCE: ARBOR DAY

FOUNDATION









Planting trees at Holy Family Catholic Church, Marietta.

### Create a water-wise landscape.

### (moderate to advanced)

Georgia has experienced several severe droughts recently, so creating a water-wise landscape is a must. A water-wise garden can reduce water use by as much as 50 percent in the summer. This can be accomplished by grouping plants according to water needs. High water use areas (limit to 10 percent or less of the landscape) require frequent watering and are typically small beds of annuals such as pansies and petunias. Moderate water use areas (about 20 percent of your landscape) need occasional watering and include perennials and small shrubs. Low water use (60 - 70 percent of the landscape) such as established trees and shrubs are watered by Mother Nature. No watering is needed for "100 percent natural" areas of the property. Learn as much as you can about environmentally friendly landscape practices from the Georgia Cooperative Extension.

### Reduce lawn size.

### (moderate to advanced)

While grassy lawns make safe and attractive surfaces on which to play, picnic and stroll, landscape managers and homeowners should be practical about choosing a lawn size that suits the church or school needs while being eco-friendly. According to the University of Georgia, lawns should not occupy more than 40 percent of a landscape. They are "monocultures" (one species of plant) and require significant maintenance. Most lawns need frequent mowing (which emits greenhouse gases into the air), regular watering and are maintained with chemical fertilizers. Improperly applied lawn chemicals frequently run off the land surface during heavy rains and pollute streams, rivers and lakes. Lawns also do not provide habitat for wildlife. Consider drought tolerant, low maintenance grasses adapted to your area. The University of Georgia provides a publication, Lawns in Georgia, to help you select the right grass and how to maintain it. Consider low-maintenance, attractive ground covers, especially in areas of minimal use to save you water and energy.

# Prepare the soil well and compost.

### (moderate)

Georgia soils can range from red clay in the north to sand in the south. Neither works well for growing plants. However, both can be improved using compost. Composting is a simple and valuable method for keeping carbon locked up in soil and out of the atmosphere. A compost pile requires a small plot of land, at least four feet by four feet (preferably away from your neighbor's property), where yard debris and vegetable



scraps can be deposited in a ratio of three to one and turned periodically. The University of Georgia Extension composting publication can show you how. If you cannot make compost, you can buy it at your local garden center. For more on composting see the chapter, Buying and Sharing Food Thoughtfully.

# Remove invasive plants. (moderate

to advanced

Before you begin planting on your parish, school and home property, remove invasive plants that can take over a landscape and engulf and suffocate native plants. Invasive non-native plants pose a serious threat to native habitat because they are fast growing and have no enemies to limit their spread. They can convert complex native plant communities supporting hundreds of different

wildlife species into a monoculture, essentially an ecological dead zone. Examples of invasive species include kudzu, Chinese privet, English Ivy and mimosa. The Southeast Exotic Pest Plant Council has a full list of Invasive Plants of the Southeast. Professional removal is available. Consider scheduling a workday for the gardening ministry to pull out the invasive plants.



Kudzu smothering trees in Atlanta, Georgia, US Photo - Scott Ehardt - Own work, Public Domain.

### "In the heart of this world, the Lord of life, who loves us so much, is always present.

### Plant native plants.

### (moderate)

Choose a variety of native plants and trees for your church and home landscape, because natives are adapted to a particular region with its temperature ranges, soil, altitude and rainfall patterns. In Georgia, this means that they are adapted to our frequent droughts and need less water. Native plants restore biodiversity to a landscape. Insects that share an evolutionary history with native plants select those plants for food and in turn become food for many native birds, reptiles, amphibians and mammals that make Georgia so environmentally rich. The Georgia Native Plant Society offers a list of Georgia native plants.



St. John Neunann Master Gardeners and parishioners care for the sustainable landscape. *Photo - Susan Varlamoff* 

Use correct planting procedures when planting. Like people, plants need to be placed in the right environment to thrive. If they are stressed, they become diseased and a target for insect pests and diseases that can weaken or kill them. Choose native plants or those adapted to the garden site. Plants like either sun or shade, dry or wet soils, rich soil or can tolerate poor soils. The plant tag has information about the plant's needs as well as how far apart to space them and when to plant them. To keep the weeds down, mulch beds with wood chips, pine bark and pine straw.

### Manage pests naturally.

### (moderate)

In Georgia, research shows that urban watersheds are more polluted with pesticides than rural ones where farmers live. Nitrogen-based fertilizers produce potent greenhouse gases and can overload waterways with dangerous pollutants and chemical pesticides with varying toxic effects can contaminate our air and water. See EPA publication Lawn and Garden Safe Pest Control.

Spraying pesticides also kills beneficial insects such as honeybees that pollinate our flowers. Integrated Pest Management is an environmentally friendly pest control method that emphasizes creating conditions for plants to thrive and then using nontoxic means to control infestations. Most nurseries sell nontoxic products that are safe to use on the church, school and home landscape and gardens. Choose products specific for organic gardening such as insecticidal soaps and oils, copper fungicide, pyrethrin, neem oil and diatomaceous earth. Natural pest control can be achieved also by using native plants to attract beneficial insects and other predators that feed on the pests. Use organic mulch to prevent weeds from emerging.



Photo - Ivan Varlamoff



St. Matthews Church Tyrone cultivates a one acre farm and offers the food at Sunday Mass. Photo - Steve Lefebvre

### Create a wildlife habitat.

### (moderate to advanced)

By restoring native plants to your landscape and linking to other natural areas nearby, you increase the native habitat size. The Holy Father suggested "to leave room for wandering and migrating species by creating biological corridors." [LS 35]. This is necessary for species that need a considerable range in which to live and reproduce. The Audubon Society and National Wildlife Federation have developed certification programs for those interested in creating a wildlife habitat in their home and church's yards.

### Plant for pollinators.

### (moderate)

Pollination is an essential process for the planet's ecological survival. Honeybees alone pollinate a third of the nation's food supply. The U.S. Department of Agriculture reported U.S. beekeepers are losing 33 percent of their honeybee colonies annually due to a syndrome known as Colony Collapse Disorder. The cause is attributed to loss of habitat, pesticide use, bee pests such as the Varroa mite, malnutrition and pathogens. To stage a comeback for pollinators, plant nectar-and pollen-producing plants for prolonged blooming. You can find a list of plants at the Georgia Center for Urban Ag. Take the Million Pollinator Garden Challenge by registering your pollinator garden.

### Consider a community or school garden.

### (moderate)

Most churches have parishioners who struggle with food insecurity and rely on food banks. Typically, food banks offer canned goods, which can be high in sodium and sugar and lacking in some important vitamins. A church or school garden can supplement canned food. Ask parishioners with home gardens to bring in their excess produce to a local food bank. For information on how to start, plant and maintain a community garden, see chapter on Buy and Share Food Thoughtfully. Contact your county Cooperative Extension office for assistance





Installing a Prayer Garden at Holy Family Catholic Church, Marietta.

### Create a meditation garden.

### (advanced)

Make a peaceful retreat with a bench for everyone to enjoy nature and pray. Consider adding a statue of St. Francis to remind parishioners of his connection with the earth. Several parishes have installed Stations of the Cross in their woodlands. To help people meditate and pray, perhaps have a weatherized container with St. Francis prayers including the Canticle of the Sun. In our over-stimulated lives, reflect on the Catechism, which teaches us: "God wills the interdependence of creatures. The sun and the moon, the cedar and the little flower, the eagle and sparrow: the spectacle of their countless diversities and inequalities tells us that no creature is self-sufficient. Creatures exist only in dependence on each other, to complete each other and in the service of one another.



# Reduce stormwater pollution.

### (moderate to advanced)

Large church parking lots are a significant concern for stormwater pollution for three reasons. They have replaced natural habitats; they generate tremendous amounts of stormwater pollution; and for most days during the week, they are largely unused. Catholic churches and schools can improve water quality by reducing the size of these parking lots, or at least converting them with state-of-the-art permeable material to allow rainwater to recharge the aquifer. The key to reducing runoff or stormwater pollution, is to "slow rain down and get it into the ground." There are many ways to do this at archdiocesan, parish and school properties, such as:

- Put in rain gardens and other natural ground cover that capture runoff.
- Install cisterns to capture roof runoff, green roofs, permeable pavement and even increase tree canopy because large canopies interrupt the flow of rain and direct it to the tree's roots. Design and installation of these projects can be complicated, but cities and counties in the archdiocese have resources to assist you.
- Maintain detention ponds on church and school property to reduce storm water pollution. These ponds catch stormwater, slow it down, release some of it into the drainage system in a controlled way and hold the rest to allow it to seep into the ground naturally. For these detention ponds to work, parish and school grounds and facility managers must maintain the ponds by keeping them free of trees, silt and trash.
- Redirect roof drains to a grassy landscape where rain can seep into the ground instead of flowing on the pavement and into sewers.

### Become a citizen scientist.

### (moderate)

From retirees to kids, people of all ages and abilities can contribute to the advancement of science. By helping supply the tens of thousands of data points required to understand sweeping ecological changes, citizen scientists can contribute data for bird migratory patterns and population trends, the influence of non-native species on native species and the effect of climate change on plants and animals. For citizen science involving birds, contact the Cornell Lab of Ornithology. Bumblebee Watch was inaugurated by the Xerces Society and other partners to track and conserve North America's bumblebees. FrogWatch USA is a citizen science program of the Association of Zoos and Aquariums (AZA) that provides individuals, groups and families with an opportunity to learn about wetlands in their communities and to report data on the calls of frogs and toads.

Citizens can also help monitor the quality of local waters through Georgia Adopt-a-Stream and programs offered through nonprofit organizations, such as the state's seven riverkeeper organizations that work to protect major waterways. The Chattahoochee RiverKeeper has an abundance of educational materials and volunteer opportunities to keep Atlanta's river clean. Check chapter on "Advocate for the Earth and the Vulnerable" for more information for more information on how to become involved with



Environmentally friendly parking. Adobe Stock Photo



Our Lady of the Assumption Catholic School students planting a vegetable garden. Photo - Brian Savoie

# Minimize the use of hard, impervious surfaces, where possible.

### (advanced)

Increasing a site's permeable surfaces allows for natural filtration, reduces costs associated with managing storm runoff and helps keep pollutants from reaching local waterways. Where feasible, use pervious pavement materials, such as gravel, porous asphalt and permeable pavers, for walk-ways, patios and parking areas. American Society of Landscape Architects has some great ideas for permeable pavement.



Grass path in garden, made of wood and grass. Eco friendly concept.

# EMBRACE ENVIRONMENTAL JUSTICE AND EQUITY



Industrial site, Stock Photo

ope Francis' appeal to us in "Laudato Si" resonates loudly in our hearts, as "new dialogue about how we are shaping the future of our planet. We need a conversation which includes everyone, since the environmental challenges we are undergoing and its human roots, concern and affect us all" [LS14]. The diversity of God's creation is evident in our cities, countries and the entire world by the variety of ecological and biological systems contained within them. Our responsible stewardship combined with establishing harmony in our relationships with one another requires all of us — the diversity of humanity — to work together towards equitable outcomes to care for our common home.

In "Laudato Si," our Holy Father said, God the Father, humanity and nature are bound together in a sacred covenant. We experience God's goodness through creation and our care of it, giving witness to his justice by our "habitual right thinking" and the "uprightness of our conduct" towards one another. Care for our common home, as an expression of true stewardship, requires us to thoughtfully consider how we tend to the environment and to the needs and concerns of one another as coworkers in God's vineyards.

Consequently, the Catechism of the Catholic Church (CCC) defined justice as: "the moral virtue that consists in the constant and firm will to give their due to God and neighbor. Justice toward God is called the 'virtue of religion.' Justice toward men disposes one to respect the rights of each and to establish in human relationships the harmony that promotes equity with regard to persons and to the common good" [CCC 1807].

As we seek to specify and compartmentalize our efforts (i.e., environmental justice as opposed to social justice, etc.), we must remember that God's justice is a commitment to the covenant that connects us to him, to his creations and to each other. Harmony, giving God and neighbor their due, requires us to search deep for what God has imprinted upon our hearts to work towards the common good.

This ultimately requires us to be creative, communal, collaborative and committed to actively and intentionally caring for creation as responsible stewards bearing witness to God's justice for the common good of all humanity. Such a monumental task may seem impossible, but God would not have entrusted us with this great responsibility if he did not trust what was "very good" to care for all that He deemed "good."

"When we speak of the 'environment'," what we really mean is a relationship existing between nature and the society which lives in it. Nature cannot be regarded as something separate from ourselves or as a mere setting in which we live. We are part of nature, included in it and thus in constant interaction with it. We are faced not with two separate crises, one environmental and the other social, but rather with one complex crisis which is both social and environmental. Strategies for a solution demand an integrated approach to combating poverty, restoring dignity to the excluded and at the same time protecting nature" [LS 139].

### Environmental justice de inition and examples

As defined by the U.S. Environmental Protection Agency, environmental justice is the fair treatment and meaningful involvement of all people regardless of race, color, national origin or income concerning the development, implementation and enforcement of environmental laws, regulations and policies.

The Holy Father stated that "inequity affects not only individuals," but it affects entire communities where our parishes communities reside. For instance, St. Anthony of Padua Catholic Church and St. Paul of the Cross Catholic Church, are located one-pointeight and five miles respectively from the defunct Exide Battery (ESB) facility, one of Atlanta's largest brownfields (EPA designated contaminated land). The ESB Facility manufactured lead-acid automobile batteries. San Felipe De Jesus Catholic Church in Forest Park is a few miles from one of Atlanta's largest tire dumps. Our Lady of the Mountains in Jasper is located 11 miles from Pine Bluff landfill, which was the site of two significant landfill emergencies in which the landfill collapsed, releasing garbage and odorous gases. The landfill also accepts toxic coal ash.

The goal is to achieve environmental equity, which refers to the distribution of environmental risks across population groups and to enact policies that ensures fairness for all socio-economic groups and assistance to those adversely impacted by polluting facilities.



Did you know?

AFRICAN-AMERICANS ARE 75 PERCENT MORE LIKELY
THAN OTHERS TO LIVE NEAR FACILITIES THAT
PRODUCE HAZARDOUS WASTE. AS A RESULT, THEY
HAVE HIGHER RATES OF HEART DISEASE, CANCER,
AND ASTHMA. (ACCORDING TO A JUNE 28, 2020 NEW
YORK TIMES ARTICLE).

THE AMERICAN LUNG ASSOCIATION REPORTS
THAT PEOPLE OF COLOR ARE THREE POINT FIVE
TIMES MORE LIKELY THAN WHITE PEOPLE TO
LIVE IN A COUNTY WITH FAILING AIR QUALITY.
LATINO CHILDREN ARE TWICE AS LIKELY TO DIE
FROM ASTHMA AS WHITE CHILDREN; FOR BLACK
CHILDREN, IT IS ALMOST EIGHT TIMES HIGHER THAN
FOR WHITE CHILDREN.



Tire dump. Adobe Stock Photo

# Understanding environmental justice and equity

Equality aims to ensure that everyone gets the same things in order to enjoy full, healthy lives. Equity involves trying to understand and give people what they need to enjoy full, healthy lives. For many years, the belief has been that equality was the goal. However, we have learned that equality requires the same starting point, circumstances and opportunities for all involved to achieve the same result. This is difficult to achieve due to the myriad of realities that people are born to or develop into, many of which are completely out of their control.

Practical examples of environmental inequity are discrepancies in how different racial or ethnic groups and social, economic groups experience more harm than other groups or live closer to significant sources of pollution causing health disparities like heart disease, lung disease and high mortality rates. Research shows that green space can improve the overall health of a community as it would reduce exposure to air pollution, noise and heat; yet, usually, the communities that need it the most lack the support and resources to easily access the opportunity. Such a community will need more guidance and assistance to achieve the desired and needed environmental and health benefits. Studies have also shown that the legacy of redlining (a discriminatory practice that puts services, financial and otherwise, out of reach for residents of certain areas based on race or ethnicity)



Environmental justice and equity for all. Adobe Stock Photo

has impacted policies for greenspace development in minority communities.

To uphold the sacred covenant of stewardship God gave us over to creation, we cannot ignore the inequalities and inequities that impact our society, ultimately affecting our world. As we battle environmental injustice and environmental inequity, we must remember Christ as the perfect example. He taught us the difference between equity and equality through his parables. In Matthew chapter 20: 1-16, Jesus tells the parable of the workers in the vineyard who were hired last but were paid the same as the workers who were hired first." Jesus told this parable to reveal that no matter how late someone may come to know Christ, they are always welcome in heaven. God's grace and mercy are the great equalizers. Another excellent example of equity is the parable of the prodigal son (Luke 15:11-32) where the father showed equal love to both sons even though one returned home in disgrace after spending his inheritance poorly. To understand more, search YouTube for a video titled Race, Equality and Equity.

# Barriers to achieving environmental justice and equity

Some barriers to achieving environmental justice and equity are institutional racism, systemic racism, conscious bias and unconscious bias. As we are interconnected as humans, creatures and the earth, our shortcomings are also interconnected and a hindrance to achieving the level of love and stewardship God intended.

### Climate change and the vulnerable in Georgia

Pope Francis emphasizes in Laudato Si´ that the poor are disproportionately affected by pollution and climate change. "Exposure to atmospheric pollutants produce a broad spectrum of health hazards, especially for the poor and causes millions of premature deaths" [LS 20]. "Climate change is a global problem with grave implication: environmental, social, economic, political and for the distribution of goods Many of the poor live in areas particularly affected by phe-nomena related to warming,.." [LS 25]. The National Institute of Health reports that the most vulnerable people — children, the elderly, the poor and those with underlying health conditions — are at increased risk for health effects from a changing climate.



Georgia climate scientists tell us that areas most vulnerable in the state to climate change now and in the future are metropolitan Atlanta and other major urban areas (e.g. Columbus, Macon, Augusta and Savannah), coastal regions and parts of South Georgia. The causes for high levels of community vulnerability in these regions vary. In the urban counties, there is a larger percentage of socially vulnerable people (e.g., minorities, poor, young, elderly, homeless) who are exposed to extreme heat and urban flooding. In 2018 Georgia, 310,000 people in Georgia were vulnerable to extreme heat. Coastal communities are more vulnerable to flooding and inundation caused by sea-level rise, which already floods roads used by evacuees and emergency service providers. Some counties in the southern part of the state are vulnerable because of the increased intensity and frequency of drought which strains domestic water supplies. Also, these counties and their residents tend to rely on agriculture for their livelihood. These counties are also a part of the South's Black Belt, a region of counties with high African-American populations and a history of often-extreme poverty.

### FOR PARISHES, SCHOOLS AND PARISHIONERS

# Raise awareness about environmental justice and equity.

### (moderate)

Host educational workshops with experts to teach leaders and parishioners about these concerns. The Partnership for Southern Equity may be able to provide speakers. Ministries can be mindful of and educate themselves on how to serve through a sustainability, environmental justice and equitability lens. For example, the health ministry can organize community clean-up walks and the green team can train and assist the parish and parishioners to become more sustainable. The results can save the earth's resources and cut back on expenses. Each ministry team can do a sustainability assessment to ensure they are considering the earth and others in their efforts, for example the food ministries (i.e. soup kitchens and food pantries) can ensure recycled or biodegradable paper products are used when serving food

# Seek help if your church and parishioners are impacted by environmental issues.

### (moderate)

Determine if your church or community is within an environmental justice area by using the US EPA screening tool.

Contact the Center for Health & Environmental Justice for assistance in organizing help if you need it. In addition, they have a small grants program to assist you. The Southern Environmental Law Center might be able to represent your case in court. The US EPA Environmental Justice web site has funding to help communities impacted by pollution.



Catholic Archdiocese of Atlanta Sustainability Strategist Leonard Robinson speaking on sustainabilty issues. Photo courtesy of Leonard Robinson

# REPORT AN ENVIRONMENTAL EMERGENCY TO THE Georgia Environmental Protection Division

epd.ga.gov/emergency-response

# Maintain a list of vulnerable parishioners.

### (moderate)

The list should include those parishioners living in environmentally hazardous areas such as a high dumping area or even those without air conditioning. It can help the parish community stay abreast of potential and current environmental justice concerns that can impact those parishioners.



# Support other parishes impacted by environmental issues.

### (advanced)

If your parish is not impacted by environmental issues, consider supporting the efforts of nearby churches fighting environmental injustice issues by attending their meetings, writing letters and calling your local, state and U.S. legislators (See "Advocate for the Earth and Vulnerable" chapter to learn how) and demonstrating on their behalf.

If there is an environmental issue facing the parish, organize parishioners to oppose the injustice. Lend your medical or scientific expertise to testify in court or local government. For those with scientific and medical expertise, consider acting as an expert witness in an environmental case.

For us all to be one in Christ on this beautiful yet damaged creation, we have to "look for solutions not only in technology but in a change of humanity; otherwise, we would be dealing merely with symptoms" [LS 9].

# Nurture healthy and collaborative relationships with environmental groups.

### (easy to moderate)

Get involved with your local affiliate within Keep Georgia Beautiful for beautification and anti-litter campaigns, with Georgia Interfaith Power and Light for energy audits and the Atlanta Department of Watershed to access water saving initiatives to assist qualified parishioners. Draw-down Georgia and Southface Institute emphasize equity in their sustaina-bility work.

The Partnership for Southern Equity is a good starting point to learn how you can support this cause.

Use safe yet effective chemicals for disinfecting and cleaning



Self-described Ecofreaks who volunteer with Gwinnett Clean and Beautiful pick up litter around the county. Photo by Steve lewett on unsplash

### Develop curriculum to support programs about environmental justice issues.

### (moderate)

The information should be relevant to local concerns as well as applicable and practical enough to create a path for students to become environmental justice leaders.



Kids Learning about Eco-Friendly Forms of Renewable Energy Adobe Stock Photo



Parishioners pose with Auxiliary Bishop, Joel M. Konzen, S.M., after the dedication Mass for the new Holy Vietnamese Martyrs church. Photo by Michael Alexander, The Georgia Bulletin

Attend workshops and seminars.

Parishioners can become educated and trained in environmental justice and equity by attending and participating in workshops, clean-ups and other trainings the church offers.



Child with amplifier speaking out on environmental issues. Adobe Stock Photo



Young adults participating in community clean-up. Adobe Stock Photo

### Did you know?

IN 2011, ATLANTA PARISH OF HOLY VIETNAMESE MARTYRS STOPPED A PROPOSED POLLUTING WASTE TRANSFER STATION FROM BEING LOCATED NEXT TO THEIR PARISH BY BUYING THE LAND INTENDED FOR THE SITE.

IN 1993, A ST. JOHN NEUMANN
PARISHIONER AND ENVIRONMENTAL
POLLUTION CONTROL EXPERT
TESTIFIED BEFORE THE STATE HOUSE
AND SENATE NATURAL RESOURCES
COMMITTEES OPPOSING THE
EXPANSION OF A LANDFILL IN AN
AFRICAN-AMERICAN COMMUNITY
IN ATLANTA. THE LANDFILL WAS
NOT EXPANDED.



Students and adults participating in service project at St. John Neumann Catholic School. Photo by Michael Alexander, The Georgia Bulletin

### **RESOURCES**

Scientific American
Pollution, Poverty and People of Color

American Journal of Public Health (AJPH)
Disparities in Distribution of Particulate Matter Emission Sources by Race and Poverty Status

Regents of the University of Michigan ENVIRONMENTAL JUSTICE FACTSHEET

#### NIEHS

Environmental Health Disparities and Environmental Justice

Regents of the University of California Racing to Reduce Emissions: Assessing the Relation between Race and Carbon Dioxide Emissions from On-Road Travel Other Information

# ADVOCATE FOR THE EARTH AND THE VULNERABLE

While this action plan includes many actions for parishes, schools and parishioners to reduce their environmental footprints, it is also critically important that people let public officials know we care about "our common home." Pope Francis wrote: "Love is also civic and political and it makes itself felt in every action that seeks to build a better world. Love for society and commitment to the common good are outstanding expressions of a charity which affects not only relationships between individuals but also macro-relationships, social, economic and political ones" [LS 231].

In this framework, along with the importance of little everyday gestures, social love moves us to devise larger strategies to halt environmental degradation and to encourage a "culture of care" which permeates all of society. When we feel that God is calling us to intervene with others in these social dynamics, we should realize that this too is part of our spirituality,

which is an exercise of charity and, as such, matures and sanctifies us.

Public policy must be guided by the needs of the common good. Pope Benedict and Pope Francis are united in saying that the Church "cannot and must not remain on the sidelines in the fight for justice. All Christians, their pastors included, are called to show concern for building a better world" [Evangelii Gaudium no. 183.]. "Not everyone is called to engage directly in political life. Society is also enriched by a countless array of organizations which work to promote the common good and to defend the environment, whether natural or urban. Some, for example, show concern for a public place (a building, an abandoned monument, a landscape) and strive to protect, restore, improve or beautify it as something belonging to everyone. Around these community actions, relationships develop and a new social fabric emerges. Thus, a community can break



Multifaith Peoples Climate Movement attracted the faithful from across the U.S. to march on Washington D.C. April 29, 2017 to demonstrate for climate change. The Catholic Archdiocese was represented. *Photo by Ivan Varlamoff* 

out of the indifference induced by consumerism. These actions cultivate a shared identity, with a story which can be remembered and handed on. In this way, the world and the quality of life of the poorest, are cared for, with a sense of solidarity which is at the same time aware that we live in a common home which God has entrusted to us. These community actions, when they express self-giving love, can also become intense spiritual experiences" [LS 231, 232].

Advocacy is essential. Everyone can take individual actions to care for our planet but, as Pope Francis teaches, "self-improvement on the part of individuals will not by itself remedy the extremely complex situation facing our world today. Social problems must be addressed by community networks and not simply by the sum of individual good deeds. The ecological conversion needed to bring about lasting change is also a community conversion" [LS 216]. Advocacy is the act or process of supporting a proposal or a cause It includes strategies that influence decision making at local, national and international levels as well as business organizations affecting environmental effects on people. Advocacy takes many forms and may include multimedia that forms public opinion, education for decision makers, public events, research and organization of coalitions.

Since 1970 citizen action has led the U.S. Congress to enact environmental regulations that have vastly improved the quality of our air, water and land. New environmental challenges now face us. Climate change and overconsumption of natural resources are taxing the earth's capacity to provide prosperity and security for future generations. Pope Francis stated, "political institutions and various other social groups are entrusted with helping to raise people's awareness. So too is the church" [LS 214].

### FOR PARISHES AND PARISHIONERS

# Become informed and involved about issues affecting the environment and the

### vulnerable. (moderate)

Effective advocacy cannot be conducted in a vacuum. Advocates must collaborate with experts and all interested parties to identify environmental needs and develop strategies that focus on priorities that can be accomplished in the political environment. It requires an understanding of the problem or issue, solid analysis

of the political and social environment and a coherent proposal for solutions. The initiatives and organizations that follow are by no means comprehensive but are examples of projects that may be undertaken with an integrated approach. The fundamental work of the Church takes place in the parish. Motivated parishes can impact public policy. Georgia is fortunate to have hundreds of environmental groups that work to educate and advocate for the management and protection of the natural resources of the state to benefit current and future generations. Following are options to consider for the various environmental issues.

### Reverse climate change

Climate change is a threat to all people, but it is a particularly serious threat to the world's most vulnerable populations. It is important that we protect those affected by climate change and advocate for the reduction of greenhouse gases that cause climate change.

Where to learn more:

The Georgia Climate Project is a statewide network of climate experts and public and private stakeholders. It provides information about climate change in Georgia, as well as climate solutions like Drawdown Georgia.

The National Climate Assessment, which includes accessible and up-to-date data on impacts of climate change in the Southeast United States, with specific references to Georgia.

Join an environmental group:

Georgia Interfaith Power and Light conducts energy and water audits for houses of worship and their schools. It also offers educational workshops and assistance to set up creation care teams and advocates for environmental justice issues.

Citizens' Climate Lobby The Atlanta chapter builds support in the Fourth and Fifth Congressional Districts to influence U.S. House and Senate members to back solutions to climate change like putting a fee on carbon and distributing the revenue to households.

Drawdown Georgia, inspired by Drawdown by Paul Hawken, is a state-centered effort to crowdsolve, meaning many individuals coming together, for climate change focusing on 20 high-impact solutions tailored to our state's unique resources.

Trees Atlanta protects and improves Atlanta's urban forest, which helps cool the city because trees affect the health and well-being of people and the urban ecosystems in which we live.



Chattahoochee Riverkeeper litter clean-up Photo by Sally Bethea

### Improve air quality

The air we breathe is vital to life and all people have a right to breathe clean air. Poor air quality caused by pollution is more commonly found near neighborhoods with people of color and near populations experiencing poverty. Air pollution is harmful to human health and well-being, so it is vital to ensure that air everywhere is safe to breathe and free of harmful pollutants.

Where to learn more: The U.S. Environmental Protection Agency in Georgia has real-time air quality data in Georgia, as well as air quality trends across the state.

### Ensure water quality

Like the air we breathe, the water we drink should be clean and safe. Pollutants and toxins in water are harmful to human health. Furthermore, availability of water is threatened by climate change. Dry areas are getting drier and this trend is expected to continue. To help provide all people this basic need, we can advocate and work to ensure that all people have access to clean water.

Where to learn more:

The U.S. Environmental Protection Agency in Georgia has information on water quality, streamflow data and much more water-related information.

Join an environmental group:

Georgia Water Coalition, an alliance of more than 250 organizations, works to ensure that water is managed fairly for all Georgians and protected for future generations. It produces a report every two years offering recommendations for water management in Georgia.

Chattahoochee Riverkeeper, based in Atlanta, advo-cates for the protection and stewardship of the river and conducts clean-ups throughout the watershed.

Georgia River Network serves as the voice of Georgia's rivers and works to empower people to enjoy, connect with and advocate for clean flowing rivers.

### Conserve energy

Energy is important for our survival and flourishing, but our dependence on carbon-based energy has produced an excess of greenhouses that have caused global warming. Reducing our carbon-based energy use is a vital part of combating climate change. Efficient energy use also reduces energy costs for frontline communities. In our advocacy efforts, we can encourage the efficient use of energy locally, nationally and globally, including the use of renewable energy.

Where to learn more:

The Southface Institute has a "Resources" page with information on green building, energy codes and case studies. Another resource, Southeast Energy News, provides a newsletter to keep you informed about energy news in the southeast U.S.

Join an environmental group:

Southface provides training and certification programs for green homes and buildings. The organization operates from an energy and water efficient head-quarters in Atlanta.





### Recycle and manage waste

Humans produce waste, but not all waste must end up in a landfill. Recycling reduces waste and encourages responsible use of resources. Furthermore, the improper disposal of waste can harm nearby communities through pollution of water and air. As individuals and part of communities, we can encourage recycling and environmentally responsible management of waste.

Where to learn more:

The Georgia Department of Community Affairs has information about recycling and solid waste disposal in Georgia and EPA contains information about hazardous waste disposal.

Join an environmental group:

**Georgia Recycling Coalition** educates and advocates for recycling throughout Georgia.

Keep Georgia Beautiful Foundation conducts litter clean-ups and sets up recycling programs.

### Use land sustainably to conserve wildlife

Uncontrolled development and consumption have threatened the existence of many species. As advocates for the Earth's creatures and all types of life, we can work to ensure that natural life created by God is protected and advocate for sustainable development of the land.

Where to learn more:

The Georgia Department of Natural Resources Wildlife Division is a good resource for wildlife conservation in Georgia.

Join an environmental group:

Georgia Audubon Society is the leading voice for the birds across the state of Georgia, working to create bird-friendly communities.

Georgia Wildlife Federation advocates for protection and restoration of waters, wildlife, forests and fields from an office located on a wildlife preserve in Covington, Georgia.

Georgia Conservancy - Association of Georgia Land Trusts is a coalition providing news, sharing conservation best practices and advocating for the protection of valuable environmental lands across Georgia.

The Nature Conservancy - Georgia protects and restores natural habitats to help communities adapt to the impacts of climate change.

The Trust for Public Land creates parks and protects land for people, ensuring healthy, livable communities for generations to come.

### Protect our coast

The Georgia coastline is particularly sensitive to climate change, as it is strongly affected by sea level rise and coastal development. We can work with coastal communities that are affected by sea level rise and advocate for the protection of coastal habitats.

Where to learn more:

The University of Georgia Marine Extension and Georgia Sea Grant works to educate citizens about Georgia's marine resources and helps coastal communities find sustainable, environmentally sound solutions to problems.

Join an environmental group: 100 Miles protects and preserves Georgia's 100-mile coast through advocacy, education and citizen engagement.



# Encourage parishioners to lobby their elected representatives.

(easy to moderate)

Citizen action is the backbone of our country. To that end, a concerned member can get involved in a number of action initiatives to affect the votes, actions and words of state and local elected officials. Such involvement is the only way to be an advocate for social, economic and environmental justice. Individuals or groups can support candidates who believe in the tenants expressed here, engage with elected and appointed officials, become experts in the field, assist in producing position papers, give expert testimony to meetings where action is anticipated or run for office themselves.

Pastors can encourage parishioners to call, write or e-mail their elected officials when critical environmental decisions are being made at the local, state and national level. A committee can be created that exists solely to act as a watchdog on all matters environmental. Catholic Climate Covenant is a national organization which helps Catholic communities support sensible, faith-informed climate policies. They provide parishes an easy way to get involved with advocacy on climate change.



Voting. Photo by Susan Varlamoft

Parishioners can become involved at the local, state and national level. Each person who takes the time to communicate their opinion is counted. Phone calls and written letters count the most, whereas on-line petitions are often disregarded. Politicians respond to the will of the people. By creating a groundswell of interest in protecting the planet, political leaders will eventually respond accordingly. The Citizens' Climate Lobby creates the political will for a livable world by empowering individuals to exercise their personal and political power.

Become informed about voting. Make sure you are registered to vote and know your local, state and federal representatives. Each time you move you have to re-register. Vote in local, state and federal elections.

Check your voter registration status at My Voter Page (www.mvp.sos.ga.gov/MVP/mvp.do)

Find and contact my Unites States Senators (www.senate.gov/senators/senators-contact.htm)

Find and contact my United States Congressional Representatives (www.house.gov/representatives/ find-your-representative)

Find and contact Georgia State Senators and Representatives (www.legis.ga.gov/ find-my-legislator)

How to Contact Your Representative or Senator: A Beginner's Guide (blogs.loc.gov/law/2016/08/how-to-contact-your-representative-or-senator-a-beginners-guide/)

My County Commissioner-Advancing Georgia's Counties (ACCG) (www.accg.org)

My City Councilmember - Georgia Municipal Association (GMA) (www.gacities.com/Home.aspx)

# Support candidates who support the environment.

### (moderate)

It is important to know your legislators' voting records regarding laws affecting the environment. Georgia Conservation Voters gives a score to each Georgia legislator on how they vote on environmental issues and links to the score card for federal legislators. The Sierra Club Georgia Chapter works every legislative session and monitors all environmental bills to keep Georgia's state lawmakers accountable to people and the environment.



Environmental legislation signed by Governor Deal. Photo by Eric Voss

### Advocate for the

Vulnerable. (easy)

Advocacy based on Catholic principles is undertaken on the international stage by such organizations as Catholic Relief Services, on the national level by Catholic Charities USA and the U.S. Conference of Catholic Bishops and on the local level by the Georgia Catholic Conference. In the Archdiocese of Atlanta, the ministries of the Office of Life, Dignity and Justice bring the social teaching of the Gospel so that the faithful are equipped to discuss important issues with their neighbors, with businesses and government leaders.

### Archdiocese of Atlanta

Justice and Peace Ministries supports archdiocesan clergy, parishes, schools, ministries and organizations on matters of justice and peace, as well as issues of social concern. Grounded in Catholic social teaching, they focus specifically on education, awareness and advocacy resources, programs and opportunities. They are committed to deepening the capacity of social justice ministries, thus helping to empower all Catholics to answer the call to love of God and neighbor by actively engaging in the social mission of the church.



To become informed on news, programs and resources of the Justice and Peace Ministries, sign up for the Just Peace newsletter. Look for the newsletter sign up link on the bottom of the homepage for the archdiocese archatl.com.

Advocacy Action Alerts provides the means to contact your members of Congress on social justice issues such as abortion, hunger, euthanasia, death penalty and climate change.

Regrettably, in the Pope's view, "The problem is that we still lack the culture needed to confront this crisis. We lack leadership capable of striking out on new paths and meeting the needs of the present with concern for all and without prejudice towards coming generations It is remarkable how weak international political responses have been. The failure of global summits on the environment make it plain that our politics are subject to technology and finance" [LS 53,54]. If governments and industries will not change on their own, advocates must arise to represent the common good.



Atlanta Botanical Garden allows children to experience the natural environment. Photo by Ivan Varlamoff

# ADAPT LAUDATO SI' FOR YOUNG PEOPLE

Young people are deeply concerned about climate change as evidenced by the meteoric rise of Greta Thunberg, the Swedish environmental activist who, at 15 years old, began a school strike for climate change. She galvanized a global movement of students who skipped school to march for Fridays for the Future. Pope Francis says, "Once we start to think about the kind of world we are leaving to future generations, we look at things differently; we realize that the world is a gift, which we have freely received and must share with others." Therefore, we have a moral and intergenerational obligation to address climate change and natural resource degradation to leave a habitable earth in which our children can thrive. Therefore, parish programs that aim to reduce their carbon footprint and promote simple living to their parishioners consistent with "Laudato Si" could engage the young members of the parish. "In the family we first learn how to show love and respect for life: we are taught respect for the local ecosystem and care for all creatures." Following are ways parishes,

schools and families can integrate young people into creation care. Some of these actions have been gleaned from previous chapters but they represent ways we can encourage our children to participate in the environmental movement to preserve the planet's resources for their futures.

### FOR PARISHES AND SCHOOLS

# Walk, bike and carpool to school.

If school is within walking distance — a mile or less — and sidewalks are present, have students dress for the weather and walk to school. If bike paths are accessible, biking is another great option and a great way to exercise. If school buses are not available, encourage moms, dads and caregivers to form carpools.

# Tap into US EPA's Eco-portal for eco-activities.

(easy)

The U.S. EPA's Eco-portal site contains a database of fun activities for young people that includes games, quizzes and cool stuff that teach lessons in energy, air, water, recycling, chemicals, waste and environmental health NASA, the National Institute of Environmental Health Sciences and National Wildlife Federation have all contributed activities. In addition, the site contains information on how to conduct a waste audit for the school, pack a waste-free lunch and learn the life cycle of a soccer ball.

# Catch the Cycle School Recycling Program.

(easy to moderate)

Developed by the Georgia Recycling Coalition, A Guide for Implementing a School Recycling Program is comprehensive and instructive in helping teachers and students set up a school recycling program in Georgia. Find out more at Catch the Cycle.

# Join the healthy school program.

### (moderate)

Self-guided assessments for teachers and students assist and support schools in understanding and practicing environmentally sound principles. To participate, students and teachers conduct school-based investigations on one or more of the six assessment areas (air, energy, facility management, school grounds, solid waste and water). Results of this program include measures that can save schools thousands of dollars a year in energy, water, maintenance and other costs. For more information, visit Healthy School Environments. (www.epa.gov/schools)



Children attending Our Lady of the Assumption Catholic School, Brookhaven, planting flowers in curs

# Incorporate environmental lessons into Sunday school classes.

### (moderate)

Make creation care part of your child's spiritual growth. For example, in Sunday School, plant a seed in a paper cup filled with soil to show how new life begins, make signs to remind family members to shut off lights and draw a picture of creation on paper made of recycled content. For more lessons and scripture readings, visit the Catholic Climate Covenant website.

### Cultivate a school garden.

### (moderate to advanced)

The University of Georgia Cooperative Extension has a school garden resource center that contains everything a teacher needs to know to cultivate a school garden. From how to build a raised bed to what to plant and how, soil considerations and natural pest management, it's all there. In addition, more than 700 lesson plans for K-12 in all core subjects from math to science to social studies and language arts are available. Training workshops are provided in the summer for teachers.



Environmental Club at Our Lady of Mercy Catholic High School in Fayetteville.

### Create a schoolyard habitat.

### (moderate to advanced)



Our Lady of the Assumption Catholc School joins the Worldwide Daffodil Project in support of children suffering in humanitarian crises in the world today.

National Wildlife Federation's "howto guide" for schoolyard habitats walks teachers through the steps to create a successful and sustainable wildlife garden, provides information on teaching in an outdoor classroom and offers resources to help create and maintain a habitat. This excellent teaching tool will help students understand ecosystem function.

# Schedule ield trips to 4-H outdoor environmental centers

### (moderate)

Five outdoor environmental centers from the mountains to the sea, offer students hands on lessons in an outdoor classroom in a variety of ecosystems. Operating September through



May. The research-based curriculum cor-relates to Georgia Performance Standards. To learn more, visit Georgia 4-H.

### Plant a class tree (moderate)

At graduation, suggest each class plant a tree to do their part to mitigate climate change. Students returning in the fall and years later can see how much it has grown. Read "The Lorax" by Dr. Seuss and learn the lessons of destroying trees for economic gain and the impact on the surrounding ecosystem.



Students grow corn in their school garden at St. Catherine of Siena Catholic School. Kennesaw

# Celebrate St. Francis Day

### (moderate)

October 4 is the **feast of St. Francis** and a wonderful day to celebrate the patron saint of the environment. Encourage students to bring in their pets for the blessing of the animals. Discuss the life of **St. Francis** and his focus on simplicity and respect and love for the earth's creatures. Consider reading or singing the **Canticle of the Sun** to students.



# Lead by example (easy to moderate)

Children learn from the way their parents and caregivers live their lives. Inside and outside the home, use earth friendly practices. Ideas from other chapters in this Action Plan include:

Inside – Turn off the lights when the room is not in use. Keep the temperature at 68° F in the winter and 78° in the summer. Use energy saving appliances and run the dishwasher and washing machine only with full loads. Conserve water. Buy only what you need and recycle and reuse everything from food, cans and glass to clothes and food. Live simply. See chapters on Conserve Energy and Conserve Water.

Outside – Plant native plants, particularly trees to bring back biodiversity. Create a water-wise garden as described in Use Land Sustainably. Reduce the lawn to minimize watering and the potential for overusing chemicals. Grow vegetables and fruits organically to show children where food comes from.

### Plant a native tree when your child is

### born (moderate)

As it grows the tree will provide shade for your child's play and become habitat for wildlife. Trees absorb carbon dioxide exhaled by humans and give off life-giving oxygen re-quired for our respiration. Read Dr. Seuss' "The Lorax" or see the film. For a list of Georgia native trees, see UGA Extension Bulletin Native Plants for Georgia Part 1.

# Encourage children to help with garden chores

(easy to moderate)

Nothing teaches a child more about nature than planting, weeding, mulching, mowing, turning the compost pile and managing pests in the garden. Put in butterfly habitats and pollinator gardens to encourage young people to learn the life cycle of a butterfly and importance of pol-linators. If possible, grow food organ-ically too. Tomatoes, peppers, squash, zucchini and blueberries are easy to grow in Georgia. When children grow food, they learn farming from seed to harvest. To learn more about home gardening, see the University of Georgia Extension publication The Vegetable Garden Calendar to learn what vegetables and fruits to grow each month. Ecclesiastes 3:2 reminds us, there is a time to plant and a time to harvest. It is important to observe the planting schedule for all plants.



Young people mulching the prayer garden at Holy Family Catholic Church, Marietta.

### Become a Junior Master Gardener (moderate)

If your child has an interest in gardening, many counties offer a junior master gardener program with nature related activities in outdoor classrooms such as school and community gardens and nature centers. For more information, contact your county Extension office or visit Georgia junior master gardener program.



### Explore the great outdoors

### (moderate)

Take young people to hike, bike, camp, canoe, swim, fish, hunt, horseback ride and more amidst Georgia's splendid natural resources in the many federal and state parks scattered throughout the state. Paddle down the Chattahoochee River, bike along the Atlanta Beltline, climb Stone Mountain and the Appalachian Trail (which originates in Georgia), hike to Amicalola Falls and go boating through the Okefenokee Swamp to see alligators up close and personal. The Georgia State Parks website makes it easy to find and locate activities for you and your family to enjoy.

# Visit botanical gardens, nature centers, the aquarium and city parks.

### (easy to moderate)

Georgia's long growing season and varied temperatures and terrain allow a diversity of fauna and flora to live and thrive in Georgia. The Atlanta Botanical Garden and Piedmont Park provide urbanites an oasis in the heart of Atlanta. The State Botanical Garden of Georgia located in Athens and associated with the University of Georgia conducts many educational programs for children through senior citizens. Chattahoochee Nature Center, Columbus Botanical Gardens, Coastal Botanical Gardens near Savannah and many others appeal to gardeners and nature lovers alike who want to unplug and connect with nature.

### Volunteer to maintain Georgia's many natural treasures.

(easy to moderate)

As a family, become a friend of the park or garden to help maintain the many state parks, local parks and nature centers and trails. Clean up your waterway through Rivers Alive. Conduct stream monitoring





In 2008, the Marist School established their organic garden Photo by Michael Alexander, The Georgia Bulletin

through Georgia Adopt-A-Stream. Many environmental non-profits such as the Nature Conservancy, Georgia Conservancy, Georgia Wildlife Federation, Trees Atlanta and all the riverkeepers rely on volunteers to protect Georgia's natural resources.

Did you know?

DURING THE LAST 15 YEARS OF RIVERS
ALIVE, 370,000 VOLUNTEERS REMOVED
9.2 MILLION POUNTS OF TRASH FROM
26,300 MILES OF STREAMS, RIVERS,
LAKES, BEACHES AND WETLANDS.

### Celebrate Earth Day.

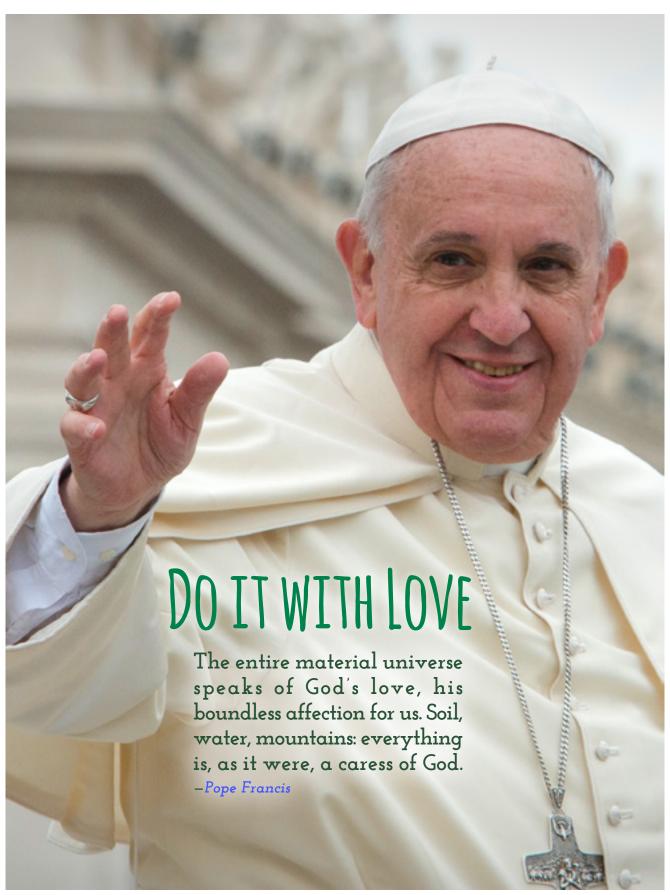
(easy)

Celebrate the glory of God on Earth Day, April 22. Pick up trash, plant a tree, visit a nature center, paddle down a river, work in your garden or attend one of the many Earth Day activities in your area. Do something to recognize your devotion to God's gift of creation, our life support system of which we are integral parts. Take the St. Francis Pledge, "I pledge to pray, live and advocate "Laudato Si" on the Catholic Climate Covenant website. You will also find a list of possible climate actions you might consider taking as an individual, family and community to get started on your journey to help heal God's creation. Our children are counting on us to heal the earth so their generation may live and thrive on the precious natural resources that our earth provides.

#### Say a Prayer for the Earth which includes these words:

Pour out upon us the power of your love, that we may protect life and beauty.

Fill us with peace, that we may live as brothers and sisters, harming no one.



Pope Francis waves during the Canonization of Blessed Pope John XXIII and Blessed Pope John Paul II.

Jeffrey Bruno from New York City, United States, CC BY-SA 2.0, Via Wikipedia Commons

# CONCLUSION

Joel M. Konzen, S.M. Auxiliary Bishop of Atlanta



At the heart of his **Laudato Si** encyclical, **Pope Francis** asks the questions to Christians and non-Christians alike: "What kind of world do we want to leave to those who come after us, to children who are now growing up?"

The recent pandemic, wildfires, droughts and social unrest, and other disruptions serve to urgently remind us that the time is now to address the environmental, social, and economic challenges we are now experiencing. The Catholic Church in North Georgia is keenly aware of the need for decisive action and seeks, through the Laudato Si' Action Plan, to advance a vision of justice and sustainability in keeping with Catholic teaching derived from the gospel of Jesus Christ.

I call on Catholics and non-Catholics alike in the state of Georgia to act responsibly for the sake of all members of the human family so that what God has given us for our use might be protected and valued for all the time to come.

I commend all who have acknowledged the benefit of cooperating in the cause of environmental integrity. And I am confident that God will continue to bless with natural wonder and bounty if only we will demonstrate our respect for all that we have received by His gracious hand.





# A PRAYER FOR OUR EARTH

All-powerful God, you are present in the whole universe and in the smallest of your creatures.

You embrace with your tenderness all that exists. Pour out upon us the power of your love, that we may protect life and beauty.

Fill us with peace that we may live as brothers and sisters, harming no one.

O God of the poor, help us to rescue the abandoned and forgotten of this earth, so precious in your eyes.

Bring healing to our lives, that we may protect the world and not prey on it, that we may sow beauty, not pollution and destruction. Touch the hearts of those who look only for gain at the expense of the poor and the earth.

Teach us to discover the worth of each thing, to be filled with awe and contemplation, to recognize that we are profoundly united with every creature

as we journey towards your infinite light.

We thank you for being with us each day. Encourage us, we pray, in our struggle for justice, love and peace.

Amen!

#### Susan Varlamoff

Editor, 2021 Edition

Rob McDowell and Susan Varlamoff

Co-Authors

### CONTRIBUTORS

to the 2021 Atlanta Laudato Si´ Action Plan

Steve Anthony, J.D. After graduating law school in 1997, he served as Chief of Staff to Speaker of the Georgia State House Tom Murphy for 18 years. Former Gov. Zell Miller appointed him to lead the Georgia Democratic Party from 1995-1998. Then Steve started his own consulting company and taught political science at Georgia State University. He retired as a senior lecturer in '15 and is involved in government outreach.

Jay Bassett, BS, is a civil engineer who has worked in public service for more than 35 years as a U.S. Navy officer (now retired) and with the U.S. Environmental Protection Agency. He has served on EPA's leadership team to transform its waste program into managing materials and products on a life-cycle basis. He serves as an advisor on priority issues in disproportionately impacted communities and on boards for sustainability-based nonprofits. He offers advanced green school programs and supports the Archdiocese of Atlanta sustainability team.

Blair Beasley. MS, is the director of climate strategies at the Ray C. Anderson Foundation. Prior to joining the Foundation, Blair worked as a consultant supporting the Georgia Climate Project and Drawdown Georgia. She previously worked at the Bipartisan Policy Center in Washington, D.C., including as the Energy Project's acting director. Blair holds a Bachelor of Arts. in journalism and mass communications from the University of North Carolina at Chapel Hill and a Master in Public Policy from Georgetown University.

Sally Bethea, MS, holds a master's degree from Georgia Tech's School of City and Regional Planning and is the retired founding director of Chattahoochee Riverkeeper, a nonprofit environmental organization. A former member of the Georgia Board of Natural Resources, she has 40 years of experience in environmental advocacy, public policy, water resources management, program planning and implementation and nonprofit management.

Rev. Jerry Cappel, Ph.D., is an ordained Episcopal priest currently serving at St. James Episcopal Church in Shelbyville, Kentucky. He also serves as the Environmental Network Coordinator for Province IV of The Episcopal Church, as staff chair for the Center for Religion and the Environment at the University of the South and as a fellow with Green Faith. He has worked as an author and editor of youth and adult education materials and retreat resources.

Natasha Dyer,MS, holds a master's degree in urban sustainability. After taking a certificate course in waste reduction and learning how organic waste (food, yard trimmings, etc.) decomposing in landfills worsens climate change, Natasha is now a lifelong zero waste enthusiast and consultant who works with waste haulers and government agencies to create systems to divert organic waste (and all waste for that matter) from the landfill.

Richard Ezike, Ph.D., is an expert on transportation equity, environmental sustainability and STEM education outreach and has worked for the Urban Institute, Union of Concerned Scientists and the Congressional Black Caucus Foundation. He has advised on transportation issues for federal agencies such as the Department of Energy, Department of Transportation and the Environmental Protection Agency; and for organizations such as the Transportation Research Board, Smart Growth America, the Greenlining Institute, Securing America's Future Energy and the State Innovation Exchange.

Robert (Robin) Gottfried, Ph.D., directs the Center for Religion and Environment of the University of The South, Sewanee, Tennessee, where he is Professor Emeritus of economics. He has published and taught extensively in the areas of the environment and sustainability, including the intersection of Christianity, economics, ecology and spirituality.

Melissa Hopkinson, Ph.D., is a lecturer of earth and environmental sciences at the University of North Georgia. Her dissertation research focused on climate change during the last Ice Age and was conducted at Scripps Institution of Oceanography at the University of California, San Diego. She is currently a member of the steering committee of Catholics for Common Good, Georgia and she attends the Catholic Center at the University of Georgia.

David Key is on the public service faculty at the University of Georgia's Carl Vinson Institute of Government. For 17 years, he taught at Emory University's Candler School of Theology. He has done advocacy work for three decades. He is former President of the Georgia Interfaith Alliance and former board chair of Georgians for Children. During his tenure with Georgians for Children, the organization helped pass Peachcare Insurance for underserved populations in Georgia.

Pamela Knox, MS, is the director of the University of Georgia Weather Network and an agricultural climatologist for UGA Extension. She is a former president of the American Association of State Climatologists and past chair of the American Meteorological Society board of certified consulting meteorologists.

Rob McDowell, Ph.D., P.G., is an associate professor of geology and environmental science at Georgia State University. Formerly, he was director of the environmental policy program in the Carl Vinson Institute of Government at the University of Georgia. His academic career was preceded by 17 years in water resources management with the Georgia Environmental Protection Division. He currently serves on the Board of Trustees of the Ignatius House Jesuit Retreat Center in Sandy Springs, Georgia.

Ashley Morris, Th.M., serves as the Associate Director of the Catholic Archdiocese of Atlanta Office of Intercultural Ministries. Previously, he served as Assistant Director of the archdiocesan Office of Black Catholic Ministry and as Assistant Campus Minister at the Atlanta University Catholic Center. He serves as a consultant for African American Affairs, Young Adult Ministry of the U.S. Conference of Catholic Bishops, as well as the Multicultural Committee and the Rapid Response Team to Racism of the National Federation of Catholic Youth Ministers (NFCYM).

LaSheka "LB" Morris, MA, is a certified nutrition and wellness coach and faith-based nutrition educator. Before she transitioned into health disparities and wellness, Morris worked in state and local government. She holds a Bachelor of Arts in political science and Master of Science in nutrition wellness and human performance. Morris' lifelong passion for advocacy and love for God fuels her zeal for environmental justice. Morris is a loving wife to her college sweetheart and doting mother to her daughter. She and her family are members of Our Lady of Lourdes Church.

Frank Mulcahy, J.D., M.T.S., has been executive director of the Georgia Catholic Conference since 1999. Frank advocates on behalf of the Catholic bishops of Georgia in support of the principles of Catholic social teaching, particularly with respect to immigration reform, protection of life, education choice, humane treatment of the poor and religious liberty. He has practiced law since 1974 as a private attorney, government attorney and corporate general counsel.

Mark Risse, Ph.D., is the Director of Marine Extension and Georgia Sea Grant and Georgia Power Professor of Water Policy at the University of Georgia. His expertise is in non-point source pollution management; water resources and storm water management and sustainable development. He is a fellow in the International Soil and Water Conservation Society.

Leonard E. Robinson, BS, is a chemical engineer, father and grandfather who has worked for more than 45 years in the private and public sectors on sustainability. He has served four governors at the California Environmental Protection Agency (Cal/EPA) and the Colorado River Board of California. Currently, he is the sustainability strategist for the Archdiocese of Atlanta who helped create a vision, mission and program for the Laudato Si´ Initiative.

Brian J. Savoie, MS, is a mechanical engineer, consultant and sustainability program coordinator for the Atlanta Laudato Si' Initiative. His 30 years of experience and knowledge of energy, water and materials enable him to fulfill this role. As co-founder of Saint Francis Services, Inc., Brian helps people to make the most of the resources God has given us. As Vice President of High Performance Concepts, Inc., he has worked with companies in many industries to make major operational improvements.

Marshall Shepherd, Ph.D., is the Georgia Athletic Association distinguished professor of geography and atmospheric sciences at the University of Georgia and director of its atmospheric sciences program. Shepherd was the 2013 president of American Meteorological Society (AMS). Prior to academia, he spent 12 years as a scientist at NASA Goddard Space Flight Center. He hosts The Weather Channel's Weather Geeks Podcast and is a senior contributor to Forbes Magazine. In 2021, Shepherd was elected to the National Academy of Sciences, National Academy of Engineering, and the American Academy of Arts and Sciences. His two TEDx talks on climate science and communication collectively exceed two million viewers. He routinely briefs the media, Congress and the White House on weather-climate-science related topics.

David Emory Stooksbury, Ph.D., is an associate professor of engineering and atmospheric sciences at the University of Georgia. He is the former state climatologist of Georgia. His expertise is in drought, agricultural meteorology/climatology and climate statistics. A native of Atlanta, he has degrees from the University of Georgia, Penn State and the University of Virginia.

Father Francis Stiteler, OCSO, has lived as a cloistered Trappist monk at the Monastery of the Holy Spirit for 46 years. He was the abbot from 2003 - 2016 and now works trying to sustainably manage the 2,300 acres of monastery property which includes forest, meadows, ponds and wetlands. Father Francis has a keen interest in butterflies and dragonflies and has identified nearly 200 species on monastery land.

Steve Valk is the Communications Coordinator for Citizens' Climate Lobby (CCL), a grassroots advocacy organization that empowers citizens to generate the political will to solve climate change. Before joining CCL in 2009, he worked for 31 years on the news desk of the Atlanta Journal-Constitution. He's been a member of the Catholic Shrine of the Immaculate Conception in Atlanta since 1989.

Susan M. Varlamoff, MS, is a biologist, author, lecturer, mother and grandmother who has worked for 40 years protecting the environment as an activist, government official, director of the University of Georgia Office of Environmental Sciences and currently assisting the Archdiocese of Atlanta to develop the Laudato Si' Initiative. She is a co-author of the 2016 Laudato Si' Action Plan and author of "Sustainable Gardening for the Southeast" and "The Polluters, A Community Fights Back." Varlamoff leads the Creation Care Team for St. John Neumann, Lilburn.





# REFRESH YOUR HEART, YOUR SOUL, YOUR WORLD