

REFLECTIONS ON LAUDATO SI
 NATIONAL COUNCIL OF CATHOLIC WOMEN
 ATLANTA, GEORGIA, AUGUST 22, 2019
 CATHOLIC WOMEN IN SOLIDARITY WITH OTHER WOMEN THROUGHOUT THE
 WORLD RESPOND TO POPE FRANCIS'S PLEA TO SAVE MOTHER EARTH AND HER
 POOR.

1. What did the Blessed Mother say to the Infant of Prague? I don't care who you are. You are not going out dressed like that!
2. Some Basic Principles of Catholic Social Justice Teaching
 - a. Three kinds of Justice: Distributive, commutative and social. (CCC 1928: Society ensures social justice when it provides the conditions that allow associations or individuals to obtain what is their due according to their nature and their vocation. Example: Title IX, XIXth Amendment...
 - b. This is NOT socialism. Let's listen to Saint JP II: He was no friend of socialism, or of unfettered capitalism for that matter and wrote the following in 1991: "The social doctrine of the Church developed in the nineteenth century when the Gospel encountered modern industrial society with its new structures for the production of consumer goods, its new concept of society, the state and authority and its new forms of labor and ownership. The development of the doctrine of the Church on economic and social matters attests to the permanent value of the Church's teaching at the same time as it attests to the true meaning of her Tradition, always living and active." (Centesimus Annus, 3) This text is found in the Catechism of the Catholic Church, #2421.
 - c. Dignity of the Human Person: From Dignitatis Humanae, II Vatican Council: "A sense of the dignity of the human person is impressing itself more and more on the consciousness of our contemporaries.
 - d. Solidarity: SRS, (12-30-87) # 26, page 44: He sees the growth of a radical interdependence and consequently of the need for a solidarity that will take up interdependence and transfer it to the moral plane... The happiness to which we aspire cannot be obtained without an effort and commitment on the part of all and the consequent renouncing of personal selfishness... Today this is called the *ecological concern*."

- e. Under Dignity, Human Rights – The Universal Declaration in which Eleanor Roosevelt played a key role as chair of the committee... The right to potable water for example. Also, food, clothing, shelter, education, health care and a job, etc.
- f. The universal destination of the goods of the earth – based on theology of creation and that we are all descendants of one couple, constituting one family.
 - The Four Freedoms of FDR and Norman Rockwell: Freedom of Religion and Speech, freedom from want and fear.
- g. The Option for the Poor: A basic moral test is how our most vulnerable members are faring. In a society marred by deepening divisions between rich and poor, our tradition recalls the story of the Last Judgment (Mt 25:31-46) and instructs us to put the needs of the poor and vulnerable first.
 - Example of mother with two children, one of whom is ill. She must dedicate more time to the sick child while loving each child equally.
 - This includes all who are vulnerable (mentally ill, persons with disabilities and the young).

NOW TO LAUDATO SI'

3. Pope Francis is not the first pope to address global warming and climate. In fact, he stands on the shoulders of his two predecessors, Saint John Paul II and Pope Benedict XVI. In 1990, Saint John Paul II wrote the following in his World Day of Peace message (January 1, 1990) "Christians, in particular, realize that their responsibility within creation and their duty towards nature and the Creator are an essential part of their faith."
 - "When man turns his back on the Creator's plan, he provokes a disorder which has inevitable repercussions on the rest of created order. If man is not at peace with God, then earth itself cannot be at peace."
 - "We cannot interfere in one area of the ecosystem without paying due attention to both the consequences of such interference in other areas and to the well-being of future generations."

- "The most profound and serious indication of the moral implications underlying the ecological problem is the lack of respect for life evident in many of the patterns of environmental pollution."
 - "Respect for life and for the dignity of the human person also extends to the rest of creation, which is called to join man in praising God."
 - Pope Francis takes up these points in *Laudato Si'*.
4. Here is Saint Francis of Assisi's poem and prayer, *Laudato Si'*

"Praised be you, my Lord, with all your creatures, especially Sir Brother Sun, who is the day and through whom you give us light. And he is beautiful and radiant with great splendor, and bears a likeness of you, Most High. Praised be you, my Lord, through Sister Moon and the stars; in heaven you formed them clear and precious and beautiful. Praised be you, my Lord, through Brother Wind, and through the air cloudy and serene, and every kind of weather/ through whom you give sustenance to your creatures. Praised be you, my Lord, through Sister Water who is very useful and humble and precious and chaste. Praised be you, my Lord, through Brother Fire, through whom you light the night and he is beautiful and playful and robust and strong." Amen.

- a. Pope Francis, like his namesake, is a mystic/ meaning that he is able to see God's presence in all people and in all aspects of nature. Like all mystics, he has an acute sense of compassion for those who suffer and for nature itself. This explains what he states at the beginning of the encyclical: "This sister now cries out to us because of the harm we have inflicted on her by our irresponsible use and abuse of the goods with which God has endowed her. We have come to see ourselves as her lords and masters, entitled to plunder her at will. The violence present in our hearts, wounded by sin, is **also reflected in the symptoms of sickness evident in the soil, in the water, in the air and in all forms of life.** This is why the earth herself, burdened and laid waste, is among the most abandoned and maltreated of our poor; she groans in travail" (*Rom 8:22*). We have forgotten that we

ourselves are dust of the earth (cf. *Gen 2:7*); our very bodies are made up of her elements, we breathe her air and we receive life and refreshment from her waters.”

- b. Thus he encourages an attitude of awe in the face of creation: The universe unfolds in God, who fills it completely. Hence, there is a mystical meaning to be found in a leaf, in a mountain trail, in a dewdrop, in a poor person’s face. The ideal is ... to discover God in all things.”
 - c. This attitude includes “disinterested concern for others and the rejection of every form of self-centeredness and self-absorption if we wish to care for our brothers and sisters and the natural environment.” Such an attitude can “attune us to the moral demand that we assess the impact of our every action and personal decision on the world around us. If we can overcome individualism, (De Tocqueville & sociologist Robert Bellah) and see our lives and decisions in relation to the common good, “we shall be able to bring about significant changes in society.” He adds, “The external deserts are growing because our internal ‘deserts’ are so vast.”
 - Example: Sprawl: My drive through a part of Simsbury, CT where large homes sit on two-acre lots. Infrastructure (roads, sewers, electricity) – people have to drive farther, more use of gasoline, greater pollution of the atmosphere – more money for heating...
 - We must put the common good ahead our own personal pursuits when they cause harm to others.
5. What right has Pope Francis to speak on a political issue like climate change? Good question. J.C. Murray, S.J./ People like the pope address the moral content of issues on the basis of human dignity and solidarity. Actually, there is no purely political issue.
 6. The Pope and science – Pontifical Academy of Sciences: Pope Pius XI renewed and reconstituted the Academy in 1936, and gave it its present name. Over the years 80 Nobel Laureates have served – each perspective member is elected by members already seated. Pope Francis and his advisors listened for over a year to members of the scientific community before **bringing an ethical light to bear on this important matter.**

- a. That is why Pope Francis and his predecessors say it is important that theologians dialogue with scientists. * He has an MA in chemistry.
- b. And the dialogue is ongoing when Pope Francis uses *Laudato Si'* as a launching pad for future interventions. On May 27th of this year the Pontifical Academy sponsored a symposium on Climate Change and New Evidence from Science, Engineering and Policy. It involved finance ministers from around the world. Pope Francis challenged them strive to achieve the goals set by their countries in the Paris Climate Agreement of 2015 and the U.N. Sustainable Development Goals. He says, "The signs today are not good because investments in fossil fuels continue to rise even though scientists tell us that fossil fuels should remain underground. Unfortunately the investment in clean energy from wind, sun and water FELL for the second consecutive year. Furthermore the concentration of carbon dioxide in the atmosphere reached 415 parts per million, the highest level recorded. (Origins, "Climate Change and New Evidence from Science, Engineering and Policy, pps 110ff)
 - What's the difference? It seems like a small number. On the contrary, the more carbon dioxide in the atmosphere, the more the sun's rays reflecting off the earth's surface **are trapped. This is the primary cause of global warming.**
- c. But isn't there a rupture between faith and reason, science and religion: No. Not for our church. (There is for fundamentalists, meaning those who take the creation story in the Book of Genesis as historic.) This presumes that those inspired by an ethical point of view respect the scientific method and vice versa. Can scientists reject God on the basis of the scientific method? No because it begins with the examination of material objects and through experimentation, comes to conclusions. Thus science cannot tell us where matter came from when the Big Bang occurred.
 - The discoverer of the Big Bang theory is Father Georges LeMaître: (1884-1966) Belgian – He entitled his discovery: The Theory of the Primeval Atom – It was Sir Fred Hoyle who belittled and insulted it by calling it the Big Bang Theory. He later abandoned his atheism.

- Benedictine Abbot Gregor Mendel, the father of Genetics!
- The Galileo Affair: Theologians were wrong to base their view of the universe on the stories of creation in the first three chapters of the Book of Genesis and elsewhere in the Old Testament (such as Joshua 10:13 when the sun stood still). Through these stories, written around the year 550 BCE, God teaches us many things: The dignity of man and woman as equal before God, the universal destination of the goods of the earth, that one God created all things and not several (as the Babylonians believed), and that Adam and Eve's sin consisted of making themselves the center of their lives rather than God.
- Thus it is important that we all observe the two great commandments that we receive from the Jews: (Deuteronomy VI:4) and the second (Leviticus XIX: 18)
- Saint Robert Bellarmine, S.J. Died in 1621 – "The Bible doesn't tell us how the heavens go but how to go to heaven."

d. Louis Pasteur

e. The following from the encyclical shows what emerged from scientific input: A very solid scientific consensus indicates that we are presently witnessing a disturbing warming of the climatic system. In recent decades this warming has been accompanied by a constant rise in the sea level and by an increase of extreme weather events, even if a scientifically determinable cause cannot be assigned to each particular phenomenon. (Hurricane Inés followed by Hurricane María two weeks later on September 20, 2017 that devastated Puerto Rico...) Humanity is called to recognize the need for changes of lifestyle, production and consumption, in order to combat this warming or at least the human causes which produce or aggravate it. It is true that there are other factors (such as volcanic activity, variations in the earth's orbit and axis, the solar cycle), yet a number of scientific studies indicate that most global warming in recent decades is due to the great concentration of

greenhouse gases (carbon dioxide, methane, nitrogen oxides and others) released mainly as a result of human activity.

- From another source: “Climate change is not even the whole story. There is also the acidification of the oceans, depletion of freshwater resources, rapid deforestation, large-scale pollution caused by chemicals and fossil fuels, and a dramatic degradation of ecosystems and loss of biodiversity.” *Commonweal Magazine*, Anthony Annett
- This is poignantly presented in the book by David Wallace-Wells, *The Uninhabitable Earth: Life After Warming* (2019, Tim Duggan Books)
- We have tried to address this problem in our country through the U.S. Air Pollution Control Act of 1955 and the Clean Air Act of 1963.

7. Question: Why did the human race arrive at the point of abusing the earth and its atmosphere? I found Bishop Robert Barron’s insight interesting.

- a. Romano Guardini’s (1885-1968) influence on Pope Francis:
Guardini saw nature and humans as an integral part of creation as did Saint Francis of Assisi and even Aristotle. Then Guardini noted that the attitudes first articulated by Francis Bacon in the sixteenth century and René Descartes in the seventeenth were coming to dominate the mentality of twentieth-century men and women.
- b. Consciously departing from Aristotle, who had said that knowledge is a form of contemplation, Bacon opined that knowledge is power, more precisely power to control the natural environment. Just a few decades later, Descartes told the intellectuals of Europe to stop fussing over theological matters and philosophical abstractions and to get about the business of “mastering” nature. According to Baron, this shift in consciousness gave rise to the modern sciences and their attendant technologies, but it also led to a deep alienation between humanity and nature. The typically modern subject became aggressive and self-absorbed, and the natural world simply something for him to manipulate for his own purposes.
- c. **In the spirit of the author of Genesis**, the Biblical prophets, Irenaeus, Thomas Aquinas, Francis of Assisi—indeed any great pre-modern figure—Pope Francis wants to recover a proper sensibility, a feeling for creation, whereby human beings and our projects are in vibrant and integrated relation with the world that surrounds us.
- d. It strikes the Pope as self-evident that the nature we have attempted to dominate, for the past several centuries, has now turned on us like

Frankenstein's monster. As he put it in a recent press conference, "God always forgives; human beings sometimes forgive; but when nature is mistreated, she never forgives." Bishop Barron concludes: "These lessons, which he learned many years ago from Romano Guardini, are worthy of careful attention today."

8. Now, the impact of climate change on the poor, including indigenous peoples whose voices must be heard. At this point I turn to Mary Robinson's fine book entitled *Climate Justice*, published last year. She is the former president of Ireland (Protestant!) and currently the UN's Special Envoy on Climate Change. Here are two cases where women became leaders in the struggle against the effects of climate change.
 - a. Patricia Cochran helps communities across Alaska and the Arctic to deal with the ravages of CC. Cochran states, "It has taken science a very long time to catch up to what our communities have been saying for decades."
 - The Arctic is warming with temperatures having risen 6.3 C (about 46.3 degrees F) over a 50 year period. Born into an Inupiat home, she is also a scientist. From her house in Nome, Alaska she could see ice but now the ice has become water. "The changing ice conditions have caused extreme erosion, flooding and permafrost degradation across the entire community." (p. 48) Consequently, as the warming trend continues, the houses of indigenous people sink and fall into the sea. As the offshore ice decreases, the sea advances and eats away at the land.
 - Robinson writes: "A recent study by the National Academy of Sciences, released in the final weeks of the Obama administration, estimated that repairing Alaska's roads, buildings and utilities because of the damage caused by CC will cost billions of dollars through the end of the century." (p.50)
 - Quoting Ms. Cochran: "For communities who have been there for thousands of years, it's a difficult decision to leave everything. It's not only the physical exhaustion but the mental exhaustion and

trauma that come along with all of those things. (p.51) “What we are seeing in the Arctic is a harbinger of what is to come for the rest of the US and of the world.” Finally, she credits her drive and optimism to her dear mother “who taught each of her 8 children to employ resilience and grit in the face of adversity.” (p. 54)

- b. Next, Jannie Staffansson – Saami people, one of the few indigenous communities in the European Union. Approximately 100,000 of them live in the northernmost parts of Norway, Sweden, Finland and the Kola Peninsula in Russia. She and her family herd reindeer in northern Sweden... Struggling with the effects of CC, she realized that she would not be taken seriously unless she earned a university education. Thus she entered the University of Gothenburg and was awarded a degree in environmental chemistry. “Now, people listen to me,” she says. She later represented her people at the UN climate summit in Paris in December of 2015.
 - She asserts: Because of warming, people now fall through the ice and drown while others are killed in avalanches. Robinson concludes this section thus: “Years before scientists fully grasped the scale of climate change, herders of Jannie’s Sámpi people told of alarming shifts in the weather. We can learn from their wisdom as they adapt to these tectonic changes. We must listen to them.” (p. 70)
 - And have you heard of Greta Thunberg? Swedish 16-year-old who started a movement among young people throughout Europe and beyond calling for an end of fossil fuels. On March 15th of this year, 1.5 million young people walked out of their classes on the high school and university levels to listen to their demands. Ultimately they will bear the brunt of any failure to curtail climate change.
 - Greta was invited to speak to the British Parliament and met Pope Francis who told her to stay the course.
- c. In his encyclical, Pope Francis references the poor 61 times. Here is but one: (para.48). The human environment and the natural environment deteriorate together... In fact, **the deterioration of the environment**

and of society affects the most vulnerable people on the planet: ‘Both everyday experience and scientific research show that the gravest effects of all attacks on the environment are suffered by the poorest’. [\[26\]](#) For example, the depletion of fishing reserves hurts small fishing communities without the means to replace those resources; **water pollution particularly affects the poor who cannot buy bottled water**; and rises in the sea level mainly affect impoverished coastal populations who have nowhere else to go. The impact of present imbalances is also seen in the **premature death of many of the poor**, in conflicts sparked by the shortage of resources, and in any number of other problems which are insufficiently represented on global agendas.” [\[27\]](#)

- According to the WHO, so much of the burden of CC is born by women and children.
 - You will note here the principle of the OPTION FOR THE POOR.
9. In light of the science of CC and the suffering it is causing to millions of our sisters and brothers, in particular poorer people, Pope Francis calls for a new attitude toward the created world and our place in it. This includes “disinterested concern for others and the rejection of every form of self-centeredness and self-absorption if we wish to care for our brothers and sisters and the natural environment. Such an attitude can “attune us to the moral demand of assessing the impact of our every action and personal decision on the world around us. If we can overcome **individualism** (here we go again) and see our lives and decisions in relation to the common good, “we shall be able to bring about significant changes in society.” He adds, “The external deserts are growing because our internal “deserts” are so vast. Here we note the principle of **SOLIDARITY**.
10. Consequently he calls for a “new dialogue about how we are shaping the future of our planet, a conversation including everyone since the environmental challenge we are undergoing, and its human roots, concern and affect us all.” (14) Members of the scientific community who are in general agreement on the need to reduce carbon emissions, political leaders, ethicists, those people being affected by current policies and practices as well as religious leaders.

- Other groups who already are at the table are those representatives from 189 countries who signed the Paris Climate Change Accords in 2015 and from which President Trump withdrew our country. These include those most responsible for global warming such as China, and India along with smaller nations that bear the brunt of carbon emissions from the more developed nations.
11. God willing, out of this will emerge a new **universal solidarity** including intergenerational solidarity – what kind of a world and atmosphere do you want to leave your grandchildren?
- a. There is always hope because of Christ's presence in the world, a world he loves more than we can imagine: "All things were created by him and for him..." (Colossians 1)
 - b. Also, those who have been involved in the movement for the protection of Mother Earth, are a sign of hope that can send ripples of energy throughout humanity. Mary Robinson, Jannie Steffansson, Patricia Cochran and Greta Thunberg among millions of others.
 - c. In this context Robinson shows that we have, as a world community, faced other problems with success. "Collective action halved global illiteracy between 197-2005. Worldwide life expectancy has risen from just 48 years in 1950 to seventy-one today. In the last twenty-five years, child mortality around the world has halved. This is proof that we can succeed in tackling enormous developmental and existential challenges when we put people at the center of everything we try to do." (p. 142) Then we can make sure that the goal of a 1.5 C rise in global temperature is met and that we don't go beyond it.
 - d. Pope Francis and others assert that facing CC effectively will take an international authority that can make laws protecting oceans and forests like the Amazon that produces 25-30% of the world's oxygen.
 - If countries agree to them, they will be held accountable by the others if they fail to live up to them.
12. The pope suggests things all of us can do, of which we are already aware such as "avoiding the use of plastic and paper, reducing water consumption (those long showers!), recycling refuse, using public transportation or car-pooling (why go it alone?), planting trees, turning off unnecessary lights, including turning off our computers when we have finished our work... LED bulbs... But who am I among so many? Yes, but if 50 million people took up the challenge...?"

- a. Renewable sources of energy – solar, wind, ocean (DeGaulle’s initiative in Normandy...)
 - b. France and room card that turns on and off all electricity...
 - c. He also suggests returning to the practice of grace before meals so that we might open ourselves to God as the ultimate giver of the food we eat, fruit of the earth and work of human hands.
13. Mary: 241. “Mary, the Mother who cared for Jesus, now cares with maternal affection and pain for this wounded world. Just as her pierced heart mourned the death of Jesus, so now she grieves for the sufferings of the crucified poor and for the creatures of this world laid waste by human power.”

14. THE MOST HOLY EUCHARIST

- a. Near the end of the document, Pope Francis focuses on the Eucharist “through which the whole of creation gives thanks to God because every Eucharist is celebrated on the “altar of the world... We know that the bread and wine are “fruit of the earth and work of human hands” that are transformed into the Body, Blood, Soul and Divinity of Jesus Christ.
- b. In the bread of the Eucharist, creation is projected towards... unification with Christ himself. Accordingly the Eucharist is also a source of light and motivation for our concerns for the environment, directing us to be stewards of all creation.”
 - The influence of Father Pierre Teilhard de Chardin, S.J.
- c. From Eucharistic Prayer 4: “To all of us, your children, grant, O merciful Father, that we may enter into a heavenly inheritance with the Blessed virgin Mary, Mother of God, with blessed Joseph, her Spouse and with your Apostles and saints in your kingdom. **There, with the whole of creation, freed from the corruption of sin and death, may we glorify you through Christ our Lord through whom you bestow on the world all that is good... Through him and with him and in him, O God almighty Father, in the unity of the Holy Spirit, all honor and glory is yours for ever and ever. Amen.**

NCCW: PONTIFICAL COUNCIL FOR JUSTICE AND PEACE AND THE TEN COMMANDMENTS OR PRINCIPLES FOR PROTECTING THE ENVIRONMENT

- 1) The Bible lays out the fundamental moral principles of how to FACE the ecological question. The human person, made in God's image, is superior to all other earthly creatures, which should in turn be used responsibly. Christ's incarnation and his teachings testify to the value of nature: Nothing that exists in this world is outside the divine plan of creation and redemption.
- 2) The social teaching of the Church recalls two fundamental points. We should not reduce nature to a mere instrument to be manipulated and exploited. Nor should we make nature an absolute value, or put it above the dignity of the human person.
- 3) The question of the environment entails the whole planet, as it is a collective good. Our responsibility toward ecology extends to future generations.
- 4) It is necessary to confirm both the primacy of ethics and the rights of man over technology, thus preserving human dignity. The central point of reference for all scientific and technical applications must be respect for the human person, who in turn should treat the other created beings with respect.
- 5) Nature must not be regarded as a reality that is divine in itself; therefore, it is not removed from human action. It is, rather, a gift offered by our Creator to the human community, confided to human intelligence and moral responsibility. It follows, then, that it is not illicit to modify the ecosystem, so long as this is done within the context of a respect for its order and beauty, and taking into consideration the utility of every creature.
- 6) Ecological questions highlight the need to achieve a greater harmony both between measures designed to foment economic development and those directed to preserving the ecology, and between national and international policies. Economic development, moreover, needs to take into consideration the integrity and rhythm of nature, because natural resources are limited. And all economic activity that uses natural resources should also include the costs of safeguarding the environment into the calculations of the overall costs of its activity.
- 7)

Concern for the environment means that we should actively work for the integral development of the poorest regions. The goods of this world have been created by God to be wisely used by all. These goods should be shared, in a just and charitable manner. The principle of the universal destiny of goods offers a fundamental orientation to deal with the complex relationship between ecology and poverty. 8) Collaboration, by means of worldwide agreements, backed up by international law, is necessary to protect the environment. Responsibility toward the environment needs to be implemented in an adequate way at the juridical level. These laws and agreements should be guided by the demands of the common good. 9) Lifestyles should be oriented according to the principles of sobriety, temperance and self-discipline, both at the personal and social levels. People need to escape from the consumer mentality and promote methods of production that respect the created order, as well as satisfying the basic needs of all. This change of lifestyle would be helped by a greater awareness of the interdependence between all the inhabitants of the earth. 10) A spiritual response must be given to environmental questions, inspired by the conviction that creation is a gift that God has placed in the hands of mankind, to be used responsibly and with loving care. People's fundamental orientation toward the created world should be one of gratitude and thankfulness.

Vatican Pontifical Academy of Sciences Proposes Practical Solutions to Prevent Catastrophic Climate Change

New Declaration from Vatican's Scientific Body Finds Climate Change Is Existential Threat to Humans and the Earth Unless We Act Fast

Vatican City, Vatican, 9 November 2017 – Scalable and practical solutions exist to help preserve the quality of life of future generations in the face of accelerating

climate impacts, and with perhaps a decade left to put these into place, the time for climate change action is now. These are the conclusions of the *Declaration* issued last week by the Vatican's Pontifical Academy of Sciences, entitled "[Our Planet, Our Health, Our Responsibility](#)".

Noting with concern that "climate change caused by fossil fuels and other human activities poses an existential threat to *Homo sapiens* and contributes to mass extinction of species," the Pontifical Academy of Sciences and the seven climate change experts leading a key workshop that produced the *Declaration* called on governments, faith leaders, civic society and other stakeholders to urgently undertake the scalable and practical solutions available to mitigate climate change.

The twelve solutions – which include rapid reductions of short-lived climate pollutants and the development of carbon dioxide removal technologies – are based on a three-lever cooling strategy outlined in the recently published matched pair of reports the [Well Under 2 Degrees Celsius: Fast Action Policies to Protect People and the Planet from Extreme Climate Change](#), authored by a team of 33 prominent scientists and policy experts co-chaired by Professor V. Ramanathan of the Scripps Institution, Nobel Laureate Mario Molina, and IGSD President Durwood Zaelke, and the peer-reviewed companion paper by Xu & Ramanathan, [Well Below 2°C: Mitigation strategies for avoiding dangerous to catastrophic climate changes](#) in the *Proceedings of the National Academy of Science*.

The strategy elaborated in the two *Under 2°C* reports and echoed in the *Declaration* demonstrate how the bending the emissions curves of climate pollutants and successfully limiting global temperature to less than 2°C above pre-industrial levels – as global leaders have pledged through the Paris Agreement – can be achieved by pulling three levers:

- Decarbonizing the global energy system by mid-century;
- Drastically reducing emissions of short-lived super climate pollutants like hydrofluorocarbons, methane, and black carbon by 2020;
- Undertaking atmospheric carbon extraction, which will be needed if CO₂ emissions do not peak by 2020.

"The world has cumulatively emitted about 2.2 trillion tons of CO₂ to date, and there is a 1 in 20 chance that emission beyond this rate presents catastrophic and perhaps even an existential risk" said Professor Ramanathan, lead co-author of the

Declaration and both *Under 2°C* reports. “To put in perspective, how many of us would choose to buckle our grandchildren to an airplane seat if we knew there was as much as a 1 in 20 chance of the plane crashing? With climate change that can pose existential threats, we have already put them in that plane. The good news from our findings is that there is still time to avoid these catastrophic changes.”

“The feasibility of achieving this aggressive three-lever mitigation strategy implemented through the twelve solutions is backed up by numerous living laboratories ranging from cities such as Stockholm to large states like California, the sixth largest economy in the world, that have already embarked on mitigation actions such as 40% reductions in CO₂ emissions by 2030 and 50% to 80% reductions in short-lived climate pollutants” said Zaelke. “The multitude of examples from our recent past—further expanded in the reports — provide hopeful cases of humanity’s ability to mobilize to achieve our collective environmental objectives,” he added.

Pope’s Address to Summit of Dicastery for Promoting Integral Human Development With Heads of Oil Companies/ June 14, 2019

‘There is still hope and there remains time to avoid the worst impacts of climate change, provided there is prompt and resolute action...’

[JUNE 14, 2019 15:14ZENIT STAFFPOPE AND HOLY SEE](#)

Dear friends, time is running out! Deliberations must go beyond mere exploration of what *can* be done, and concentrate on what *needs* to be done. We do not have the luxury of waiting for others to step forward, or of prioritizing short-term economic benefits. The climate crisis requires “our decisive action, here and now” (*Laudato Si'*, 161) and the Church is fully committed to playing her part.

He emphasizes the impact of climate change on the poor and that the world cannot go beyond the 1.5 C standard of the Paris Agreement.