



ENCYCLICAL
PRAISED BE
THE HOLY FATHER
FRANCIS
ON CARE OF OUR COMMON HOME

1. "Praised be, my Lord," sang Saint Francis of Assisi. In this beautiful song he reminded us that our common home is also a sister, with whom we share the existence, and a beautiful mother who welcomes us into her arms: "Praised be, my Lord, through Sister Mother Earth, who sustains and governs us, and produces various fruits with colored flowers and herbs." [1 Canticum of the Sun: Franciscan Sources (FF) 263.]

2. This sister protests the evil that we provoke, because of the irresponsible use and the abuse of the goods that God has placed in her. We grew up thinking that we were its owners and rulers, allowed to plunder it. The violence that exists in the human heart wounded by sin is also manifested in the symptoms of the disease we perceive in soil, water, air and in living things. For this, among the most abandoned poor and abused, there is our oppressed and devastated land, that "groaning in travail" (Rm 8:22). We forget that we ourselves are earth (cf. Gen 2.7). Our body is made up of the same elements of the planet, its air is the one that gives us the breath and its water gives us life and restores.

Nothing that arises in this world is indifferent.

3. More than fifty years ago, while the world teetered on the brink of a nuclear crisis, the saint Pope John XXIII wrote an Encyclical with which was not limited only to reject the war, but he wanted to submit a draft proposal peace. He directed his message *Pacem in Terris* to all the "Catholic world", but added "as well to all men of good will. "Now, of the deteriorating global environment, I speak to every person who lives this planet. In my Exhortation *Evangelii Gaudium*, I wrote to the members

of the Church to mobilize a reform process still on a mission from accomplishing. In this encyclical, I propose especially to enter into dialogue with all respecting our common home.

4. Eight years after the *Pacem in Terris*, in 1971, Blessed Pope Paul VI referred to the ecological question, presenting it as a crisis that is "a dramatic consequence" of uncontrolled activity of the human being: "Through a reckless exploitation of nature he risks destroying it and becoming in his turn the victim of this degradation". [2 Lett. Ap. Octogesima adveniens (14 May 1971), 21: AAS 63 (1971), 416-417.] He also spoke to the FAO of the possibility "under the influence of backlash of industrial civilization, of [...] a real ecological catastrophe," emphasizing "the urgent need for a radical change in the conduct of mankind," because "the most extraordinary scientific advances, the most amazing technical feats, the most prodigious economic growth, if they are not joined to a genuine social and moral progress, they turn, ultimately, against man." [3 Address to FAO on the 25th anniversary (November 16, 1970), 4: AAS 62 (1970), 833.]

5. St. John Paul II dealt with this issue with a growing interest. In his first encyclical, he said that the human being seems "to perceive no other meaning in his natural environment, but only those that serve the purpose of immediate use and consumption." [4 Lett. Enc. *Redemptor hominis* (4 March 1979), 15: AAS 71 (1979), 287.] Subsequently he invited to a global ecological conversion. [5 Cf. Catechism (17 January 2001), 4: *L'Osservatore* 24/1 (2001), 179.] But at the same time he pointed out that it takes little effort to "safeguard the

moral conditions for an authentic human ecology." [6 Lett. Enc. Centesimus Annus (May 1, 1991), 38: AAS 83 (1991), 841.] The destruction of the human environment is something very serious, not only because God has entrusted the world to the human being, but because human life itself is a gift that must be protected by various forms of degradation. Any aspiration to treat and improve the world requires changing profoundly the "lifestyles, of models of production and consumption, the established structures of power which today govern societies". [7 Ibid., 58: p. 863.] Authentic human development has a moral character and assumes the full respect of the human person, but must also pay attention to the natural world and "take into account the nature of each being and of its mutual connection in an ordered system". [8 John Paul II, Enc. Lett. Ioannis Pauli PP (30 December 1987), 34: AAS 80 (1988), 559.] Therefore, the ability of human beings to transform reality must be developed on the basis of prior and original gift of the things of God. [9 Cf. Id., Lett. enc. Centesimus Annus (May 1, 1991), 37: AAS 83 (1991), 840.]

6. My predecessor Benedict XVI renewed the invitation "to eliminate the structural causes of global economic dysfunction and to correct models of growth that seem incapable of guaranteeing respect for the environment." [10 Address to the Diplomatic Corps accredited to the Holy See (January 8, 2007): AAS 99 (2007), 73.] He recalled that the world can not be analyzed by isolating just one aspect, because "the book of nature is one and indivisible "and includes the environment, life, sexuality, family, social relationships, and other aspects. Consequently, "the degradation of nature is closely linked to the cultural models shaping human coexistence." [11 Lett. Enc. Caritas in Veritate (29 June

2009), 51: AAS 101 (2009), 687.] Pope Benedict has proposed to recognize that the natural environment is full of wounds caused by our irresponsible behavior. Even the social environment has its wounds. But all are caused basically by the same evil, that is the idea that there are no indisputable truths to guide our lives, that human freedom has no limits. He forgets that "man is not only a freedom that creates itself. Man does not create himself. He is spirit and desire, but also nature." [12 Address to the Deutscher Bundestag, Berlin (September 22, 2011): AAS 103 (2011), 664.] With fatherly concern he invited us to recognize that the creation is compromised "where we ourselves are the ultimate demand, where the set is merely our property and we consume it for ourselves alone. And the wasting of creation begins where we no longer recognize any need superior to us, but we see only ourselves." [13 Address to the clergy of the Diocese of Bolzano-Bressanone (August 6, 2008): AAS 100 (2008), 634.]

United by the same concern

7. These contributions of the Popes collect the reflection of countless scientists, philosophers, theologians and social organizations that have enriched the Church's thinking on these issues. But we cannot ignore that, even outside the Catholic Church, other churches and Christian communities - as well as other religions - have developed a deep concern and a valuable reflection on these issues that are dear to us all. To name just a particularly significant example, I want to take a brief part of the contribution of the first Ecumenical Patriarch Bartholomew, with whom we share the hope of full ecclesial communion.

8. Patriarch Bartholomew has referred particularly to the need for everyone to repent of their way of mistreating the planet, because "to the extent that all of us we cause little damage to the environment," we are called to recognize "our contribution, small or large, the distortion and destruction of the environment. " [14 Message for the Day of Prayer for the integrity of creation (1 September 2012).] On this point, he has repeatedly expressed firmly and bracingly, inviting us to recognize sins against creation: "What humans destroy the biological diversity of God's creation; that humans affect the integrity of the earth and contribute to climate change, stripping the earth of its natural forests or destroying its wetlands; that humans pollute the waters, soil, air: all these are sins. "[15 speech in Santa Barbara, California (November 8, 1997); cf. John Chryssavgis, *On Earth as in Heaven: Ecological Vision of Ecumenical Patriarch Bartholomew and Initiatives*, Bronx, New York, 2012.] Because "a crime against nature is a crime against ourselves and a sin against God." [16 Ibid.]

9. At the same time Bartholomew has called attention to the ethical and spiritual roots of environmental problems, which invite us to seek solutions not only in technology, but also a change in the human being, because otherwise it would address only the symptoms. He proposed to move from consumption to sacrifice, from greed to generosity, from the waste to the ability to share, in an asceticism that "means learning to give, and not simply give up. It is a way to love, to gradually shift from what I want to what the world of God needs. It is freedom from fear, greed and addiction." [17 Conference to Utstein Monastery, Norway (June 23, 2003).] We Christians, also, are called to "accept the world as a sacrament of communion, as a way of sharing with God

and with one another in a global scale. It is our humble belief that the divine and the human meet in the smallest detail of the seamless garment of God's creation, even the last speck of dust of our planet." [18 Speech "Global Responsibility and Ecological Sustainability: Closing Remarks", The Summit of Halki, Istanbul (20 June 2012).]

St. Francis of Assisi

10. I do not want to proceed in this encyclical without mentioning a beautiful and motivating example. I took his name as a guide and inspiration in the moment of my election as Bishop of Rome. I think Francis is the example par excellence of care for the weak and of an integral ecology, lived with joy and authenticity. He is the patron saint of all those who study and work in the field of ecology, loved by many who are not Christians. He showed special attention towards the creation of God and for the poor and abandoned. He loved and was loved for his joy, his selfless dedication, his universal heart. He was a mystic and a pilgrim who lived with simplicity and in a wonderful harmony with God, with others, with nature and with himself. In him we find the extent to which concern for nature, justice for the poor, commitment to society and inner peace are inseparable.

11. His testimony also shows us that the integral ecology requires openness towards categories that transcend the language of the exact sciences or biology and connect us with the essence of the human. Just as it happens when we fall in love with a person, whenever Francis looked at the sun, the moon, the smaller animals, his reaction was singing, involving in its praise all other creatures. He entered into communication with the whole of creation,

and even preached to the flowers and "invited them to praise and love God, as beings endowed with reason." [19 Thomas of Celano, First Life of St. Francis, XXIX, 81: FF 460.] His reaction was much more than an intellectual appreciation or an economic calculation, because for him any creature was a sister, joined to him with bonds of affection. For that he felt called to take care of all that exists. His disciple, St. Bonaventure said of him, "considering that all things have a common origin, he felt full of pity and even more called creatures, however small, as his brother or sister." [20 Legenda Maior, VIII, 6: FF 1145.] This belief cannot be despised as an irrational romanticism, because it influences the choices that determine our behavior. If we approach nature and environment without this opening to amazement and wonder, if we no longer talk the language of brotherhood and beauty in our relationship with the world, our attitudes will be those of the ruler, the consumer or the mere exploiter of natural resources, unable to put a limit to his immediate interests. Conversely, if we feel intimately united with all that exists, sobriety and care will arise spontaneously. The poverty and austerity of St. Francis were not only external asceticism but something more radical: a renunciation of making reality a mere object of use and domination.

12. On the other hand, St. Francis, faithful to Scripture, proposes to recognize nature as a wonderful book in which God speaks to us and gives us something of its beauty and goodness: "For from the greatness and beauty of created things come a corresponding perception of their author" (Wis 13,5) and "his eternal power and divinity has been clearly perceived by the creation of the world through the things he has made"

(Romans 1:20). Why the convent asks that you always leave a part of the garden uncultivated, because wild herbs will grow, so that those who admire them might raise the thought to God, the author of so much beauty. [21 See Thomas of Celano, second Life of St. Francis, CXXIV, 165: FF 750] The world is more than a problem to be solved, it is a happy mystery we contemplate with joy and praise.

My appeal

13. The urgent challenge of protecting our common home understands the concern to unite the whole human family in the search for sustainable and integral development, for we know that things can change. The Creator does not abandon us, he never backed down in his plan of love, does not regret having created. Humanity still has the ability to work together to build our common home. I wish to express gratitude, encourage and thank all those who, in various fields of human activity, are working to ensure the protection of the home we share. Those who fight vigorously to solve the dramatic consequences of environmental degradation in the lives of the world's poorest deserve a special gratitude. Young people demand of us a change. They wonder how can you claim to build a better future without thinking about the environmental crisis and the suffering of the excluded.

14. I address an urgent call to renew the dialogue on how we are building the future of the planet. We need a comparison that unites us all, because the environmental challenge in which we live, and its human roots, concern us and affect us all. The ecological movement worldwide has already come a long and rich way, and has created

numerous coalitions that have fostered citizens' awareness. Unfortunately, a lot of effort to find concrete solutions to the environmental crisis are often frustrated not only by the refusal of the powerful, but also by the lack of interest of others. Attitudes that hinder the ways of solution, even among believers, range from denial of the problem to indifference, to comfortable resignation, or blind faith in technical solutions. We need new universal solidarity. As the Bishops of South Africa said, "the talent and the involvement of everyone is needed to repair the damage caused by humans on the creation of God." [22 Conference of Catholic Bishops of Southern Africa, Pastoral Statement on the Environmental Crisis (September 5, 1999).] We can all work together as instruments of God for the care of creation, each with his own culture and experience, his own initiative and capabilities.

15. I hope that this encyclical letter, in addition to the social teaching of the Church, help us to recognize the magnitude, the urgency and the beauty of the challenge facing us. First, I'll make a brief journey through various aspects of the current ecological crisis in order to engage the best fruits of scientific research available today, to let us touch it deeply and give a basic substance to the ethical and spiritual path that follows. From this overview, I will take up some of the arguments arising from the Judeo-Christian tradition, in order to give greater coherence to our commitment to the environment. Then I'll try to get to the roots of the current situation, in order to grasp not only the symptoms but also the root causes. So we propose an ecology that, in its various dimensions, integrates the specific place that man occupies in this world and its relations with the world around him. In the light of this

reflection I would like to take a step forward in some broad lines of dialogue and action that involve both all of us, and international politics. Finally, since I am convinced that any change needs motivations and an educative path, propose some lines of human development inspired by the treasure of Christian spiritual experience.

16. Each chapter, though it has its own theme and a specific methodology, takes in turn, from a new perspective, important issues addressed in the previous chapters. This especially concerns some cornerstones that cross all the Encyclical. For example: the intimate relationship between the poor and the fragility of the planet; the belief that everything in the world is closely connected; the criticism of the new paradigm and the forms of power that arise from technology; an invitation to look for other ways of understanding the economy and progress; the intrinsic value of every creature; the human sense of ecology; the need for sincere and honest debates; the grave responsibility of local and international policy; the culture of waste and the proposal of a new lifestyle. These themes are never closed or abandoned, but rather constantly taken up and enriched.

CHAPTER ONE

WHAT IS HAPPENING TO OUR HOME

17. The philosophical or theological reflections on the state of humanity and the world may sound like a repetitive and empty message, if not presented anew starting from a comparison with the current situation, in what's new for the story of humanity. For this, first to recognize that faith brings new motivation and needs in front of the world to which we belong, I propose to take a brief look to consider what is happening to our common home.

18. The continued acceleration of the changes of mankind and the planet joins today the intensification of the rhythms of life and work, in what some call in Spanish "rapidación" (rapidization). Although the change is part of the dynamics of complex systems, the speed that human actions impose today contrasts with the natural slowness of biological evolution. Added to this is the problem that the objectives of this rapid and constant change are not necessarily geared to the common good and sustainable and integral human development. Change is something auspicious, but it becomes worrisome when it changes into deterioration of the world and the quality of life of most of humanity.

19. After a period of irrational faith in progress and in human capabilities, a part of society is entering a phase of greater awareness. There is an increasing sensitivity about the environment and care of nature, and it developed a sincere and painful concern for what is happening to our planet. Let's take a path which will be

certainly incomplete, through those issues which today cause anxiety and that now we can no longer hide under the rug. The goal is not to collect information or to satisfy our curiosity, but to take painful awareness, to dare to transform personal suffering that happens in the world, and thus recognize what is the contribution that each can bring.

I. POLLUTION AND CLIMATE CHANGE

Pollution, refuse and culture of waste

20. There are forms of pollution that affect people every day. Exposure to air pollutants produces a wide range of health effects, particularly the poorest, and cause millions of premature deaths. We get sick, for example, due to inhalation of large amounts of smoke produced by fuels used for cooking and heating. Added to this is the pollution that affects everyone, caused by transport, by industrial fumes, by emitting of substances that contribute to the acidification of soil and water, fertilizers, insecticides, fungicides, herbicides and toxic pesticides in general. Technology, related to finance, claims to be the only solution to the problems, in fact it is not able to see the mystery of the multiple relationships that exist between things, and this sometimes solves a problem by creating new ones.

21. We must also consider the pollution produced by waste, including hazardous waste present in different environments. They produce hundreds of millions of tons of waste a year, many of which are not biodegradable: household and commercial waste, demolition debris, clinical waste, highly toxic and

radioactive electronic or industrial waste. The earth, our home, seems to become more and more in a huge garbage dump. In many places on the planet, the elderly remember with nostalgia the landscapes of the past, which now appear inundated with junk. Much industrial waste as the chemicals used in the towns and fields, can produce an effect of bio-accumulation in the bodies of the inhabitants of neighboring areas, which also occurs when the level of the presence of a toxic element in a place is low. Many times they take measures only when effects on people's health produced are irreversible.

22. These issues are intimately linked to the culture of waste, which is harmful to both human beings as well as the things that turn quickly into trash. Let us realize, for example, that most of the paper that is produced is thrown away and not recycled. Hard to recognize that the functioning of natural ecosystems is exemplary: the plants synthesize nutrients that feed the herbivores; these in turn feed the carnivores, which provide large quantities of organic waste, which give rise to a new generation of plants. In contrast, the industrial system, at the end of the cycle of production and consumption, has not developed the ability to absorb and reuse waste and slag. It has not yet managed to adopt a circular pattern of production to ensure resources for all and for future generations, and that requires us to limit the use of non-renewable resources, moderate consumption, maximize the efficiency of exploitation, reuse and recycle.

Addressing this issue would be a way to counter the culture of waste that ends up hurting the entire planet, but we see that progress in this direction are still very limited.

The climate as a common good

23. The climate is a common good of all and for all. It, globally, is a complex system in relation to many conditions essential for human life. There is a very consistent scientific consensus indicating that we are witnessing an alarming warming of the climate system. In recent decades, this warming has been accompanied by a steady rise in the sea level, and is also hard not to relate it to the increase in extreme weather events, regardless of the fact that we can not attribute a scientifically determined cause to every particular phenomenon. Humanity is called to become aware of the need to change lifestyles, production and consumption, to combat this heating or, at least, the human causes that produce or accentuate it. It is true that there are other factors (such as volcanism, and the variations of the orbit of the Earth, the solar cycle), but numerous scientific studies indicate that most of the global warming of recent decades is due to the large concentration of gas emissions (carbon dioxide, methane, nitrous oxide and other) issued mainly because of human activity. Their concentrations in the atmosphere prevent the heat of sunlight reflected by the earth from being dispersed into space. This is especially enhanced by the development model based on the intensive use of fossil fuels, which is at the center of the world energy system. It has also been affected by the increase in the practice of land-use change, primarily deforestation for agricultural purposes.

24. In turn, the heating has effects on the carbon cycle. It creates a vicious cycle that exacerbates the situation even more and that will affect the availability of essential resources such as drinking water, energy and agricultural production of the hottest areas, and will result in the extinction of the planet's biodiversity. The

melting of polar ice and high altitude threat of methane gas escaping at high risk, and the decomposition of frozen organic matter could further accentuate the emission of carbon dioxide. In turn, the loss of tropical forests makes things worse, since they help to mitigate climate change. The pollution produced by carbon dioxide increases the acidity of the oceans and affects the marine food chain. If the current trend continues, this century could witness unprecedented climate change and unprecedented destruction of ecosystems, with serious consequences for all of us. Rising sea levels, for example, can create situations of extreme seriousness when we consider that a quarter of the world population lives by the sea or very close to it, and most of the megacities are located in coastal areas.

25. Climate change is a global problem with serious environmental, social, economic, distributive, and political implications, and is a major current challenge for humanity. Heavier impacts probably will fall in the coming decades on developing countries. Many poor people live in areas particularly affected by phenomena related to global warming, and their livelihoods are heavily dependent on nature reserves and by so-called ecosystem services, such as agriculture, fisheries and forestry. They have no other financial resources and other resources that enable them to adapt to climate impacts or deal with catastrophic situations, and have little access to social services and protection. For example, climate change gives rise to migration of animals and plants that can not always adapt, and this in turn affects the productive resources of the poor, who also are forced to migrate with great uncertainty about the future of their lives and of their children. Tragically, the increase of migrants fleeing poverty exacerbated by

environmental degradation, are not recognized as refugees in international conventions and carry the burden of lives abandoned by a lack of any protective legislation. Unfortunately there is a general indifference to these tragedies, which commonly occur in different parts of the world. The lack of reaction in the face of these tragedies of our brothers and sisters is a sign of the loss of the sense of responsibility for our fellow men that underpin any civilized society.

26. Many of those who hold more resources and economic or political power appear to be concentrating mainly in masking the problems and hiding the symptoms, just trying to reduce some of the negative impacts of climate change. But many signs indicate that these effects may be worse and worse if we continue with current patterns of production and consumption. Therefore it has become an urgent and compelling policy development in the coming years that the emission of carbon dioxide and other heavily polluting gases is reduced drastically, for example, by replacing fossil fuels and developing renewable energy sources. In the world there is a small level of access to clean and renewable energy. There is still a need to develop adequate technologies for storage. However, in some countries there have been advances that begin to be significant, although they are far from reaching a significant proportion. There are also a number of investments in modes of production and transportation that use less energy and require fewer raw materials, as well as in methods of construction or renovation of buildings that improve energy efficiency. But these practices are far from becoming general.

II. THE WATER ISSUE

27. Other indicators of the current situation are related to the depletion of natural resources. We know it is impossible to sustain the current level of consumption of more developed countries and the wealthiest sectors of society, where the habit of wasting and throwing away reaches unprecedented levels. Already they have exceeded certain maximum limits of exploitation of the planet, without the problem of poverty having been resolved.

28. Clean drinking water is an issue of primary importance, because it is essential for human life and for supporting terrestrial and aquatic ecosystems. Sources of fresh water supply the health, agro-pastoral and industrial sectors. The availability of water has remained relatively constant for a long time, but now in many places demand exceeds sustainable supply, with serious consequences in the short and long term. Big cities, dependent on major water reserves, suffer periods of shortage of the resource, which at critical moments is not always administered with proper and impartial management. There is a poverty of public water especially in Africa, where large sections of the population do not have access to safe drinking water, or suffer droughts that make the production of food difficult. In some countries, there are regions with plenty of water, while others suffer from a serious shortage.

29. A particularly serious problem is that of the quality of water available to the poor, which causes many deaths every day. Among the poor there are frequent water-related diseases, including those caused by microorganisms and chemicals. Dysentery and cholera, due to inadequately improved sanitation and water

reserves, are a significant factor of suffering and mortality. The aquifers in many places are threatened by pollution from certain mining, agricultural and industrial practices, especially in countries where there are not sufficient regulations or controls. We do not think only of waste from factories. Detergents and chemicals that people use in many places around the world continue to pour in rivers, lakes and seas.

30. While the quality of the available water is steadily worse, in some places the trend is advancing to privatize this scarce resource, transformed into a commodity subject to market forces. In fact, access to safe drinking water is an essential, a fundamental and universal human right, because it determines the survival of the people, and this is a requirement for the exercise of other human rights. This world has a serious social debt to the poor who have no access to clean water, because that is to deny them the right to life rooted in their inalienable dignity. This debt is joined in part with greater economic contributions to provide clean water and sanitation services among the poorest populations. But there is a waste of water, not only in developed countries but also in developing ones that have large reserves. This highlights that the water problem is partly a question of education and culture, because there is not awareness of the seriousness of such conduct in a context of great inequity.

31. A greater water shortage will result in the increase in the cost of food and various products that depend from its use. Some studies have reported the risk of suffering an acute shortage of water within a few decades if action is not taken urgently. The environmental impacts could affect billions of people, and on the other hand it is

expected that the water control by large global companies will become a major source of conflict in this century. [23 See Greeting to FAO staff (November 20, 2014): AAS 106 (2014), 985.]

III. LOSS OF BIODIVERSITY

32. Even the earth's resources are plundered because of the economy and the commercial and productive attitudes too tied to the immediate result. The loss of forests and woodlands implies at the same time the loss of species which may constitute in the future extremely important resources, not only for feeding, but also for the treatment of diseases and for multiple services. Different species contain genes that may be key resources to respond in the future to some human need or to solve some environmental problem.

33. But do not just think about the different species just like any exploitable "resources", forgetting that they have a value in themselves. Every year thousands of species of plants and animals disappear that we can no longer know, that our children will not be able to see, lost forever. The vast majority is extinguished for reasons having to do with some human activity. Because of us, thousands of species will not give glory to God with their lives, nor can communicate his message. We have not the right.

34. Probably becoming aware of the extinction of a mammal or a bird troubles us, because of their greater visibility. But for the proper functioning of ecosystems there is also needed fungi, algae, worms, small insects, reptiles and countless variety of microorganisms. Some species that are few in number, usually going unnoticed,

play a role critical to stabilizing the balance of a place. It is true that the human being has to intervene when a geosystem enters a critical stage, but today the level of human intervention in a reality as complex as the nature is such, that the constant disasters caused by human cause his new intervention, so that human activity become ubiquitous, with all the risks that entails. It creates a vicious circle in which the intervention of the human being to solve a problem often worsens the situation further. For example, many birds and insects that die out as a result of toxic pesticides created by technology, are useful to agriculture itself, and their disappearance will be compensated with another technological intervention that probably will bring new harmful effects. The efforts of scientists and technicians who try to solve the problems created by humans are commendable and sometimes admirable. But looking at the world we see that this level of human intervention, often in the service of finance and consumerism, actually causes the earth we live in to become less rich and beautiful, more and more limited and gray, while at the same time the development of technology and consumer goods continues to advance without limits. In this way, it seems that we delude ourselves that we are able to replace a unique and unrecoverable beauty by another created by us.

35. When analyzing the environmental impact of any economic initiative, it is customary to consider the effects on the soil, water and air, but it does not always include a careful study of the impact on biodiversity, as if the loss of some species or groups of animal or vegetation was something unimportant. Roads, new crops, fences, water bodies and other buildings, they are taking possession of and sometimes fragmenting habitat

so that animal populations can no longer migrate or move freely, so that some species are threatened with extinction. There are alternatives that at least mitigate the impact of these works, such as the creation of biological corridors, but in only a few countries there is such care and such attention. When we commercially exploit certain species, we don't always consider their growth mode, to avoid their excessive reduction with the consequent imbalance of the ecosystem.

36. The attention of ecosystems requires a look that goes beyond the immediate, because when you look at only quick and easy financial gain, there is not anyone truly interested in their preservation. But the cost of damage caused by neglect selfish is far higher than the economic benefit that you can get. In case of loss or serious damage to some species, we are talking about values that exceed any calculation. For this, we can be silent witnesses to serious inequity when one attempts to obtain significant benefits by charging to the rest of humanity, present and future, the high costs of environmental degradation.

37. Some countries have made progress in the effective conservation of certain places and areas - on land and in the oceans - which forbids any human intervention that can change its appearance or alter its original constitution. In the care of biodiversity, specialists insist on the need to place a special emphasis on those areas with the richest variety of species, endemic species, and infrequent or lesser degree of effective protection. There are places that require special care because of their enormous importance to the global ecosystem, or that are significant reserves of water and thus ensure other forms of life.

38. We recall, for example, those lungs of the planet full of biodiversity that are the Amazon and the river basin of the Congo, or the great aquifers and glaciers. The importance of these regions for the whole planet and for the future of humanity is well known. The ecosystems of tropical forests have a biodiversity of great complexity, almost impossible to know completely, but when these forests are burned or razed to increase crops, in a few years you lose countless species, or those areas are transformed into arid deserts. However, a delicate balance is required when it comes to these places, because you cannot ignore the huge international economic interests which, on the pretext of taking care, may endanger national sovereignty. In fact there is the "proposed internationalization of the Amazon, which only serves the economic interests of transnational corporations." [24 V General Conference of Latin American Bishops, Aparecida Document (June 29, 2007), 86.] It is a commendable commitment of international agencies and civil society organizations to sensitize the people and cooperate in a critical way, even using legitimate mechanisms of pressure, so that every government and fulfills its non-delegable duty to preserve the environment and natural resources of their country, without selling to ambiguous local or international interests.

39. Not even the replacement of the areas planted with wildflowers with timber farms, which are generally monocultures, is usually subject to appropriate analysis. In reality it can seriously affect biodiversity which is not accommodated by new species that are planted. The wetlands, which are converted into agricultural land,

lose the enormous biodiversity that was housed there. In some coastal areas there is the alarming disappearance of mangrove ecosystems.

40. The oceans not only contain most of the planet, but also most of the wide variety of living things, many of which are still unknown to us and are threatened by various causes. In addition, life in rivers, lakes, seas and oceans, which feeds much of the world's population, is seen to be affected by the uncontrolled withdrawal of fish resources, which results in drastic declines of some species. Yet we continue to develop selective fishing methods that discard much of the collected species.

Marine organisms that we do not take into account are particularly threatened, as some forms of plankton that form a very important component in the marine food chain, and ultimately, species that are used for human food, on which they depend.

41. Delving in tropical and subtropical seas, we find the coral reefs, which correspond to the great forests of the mainland, because they are home to approximately one million species, including fish, crabs, molluscs, sponges, algae. Many of the world's coral reefs today are infertile or are in steady decline "Who turned the wonderful marine world into submarine cemeteries stripped of life and color?". [25 Catholic Bishops' Conference of the Philippines, Pastoral Letter What is Happening to our Beautiful Land? (29 January 1988).] This phenomenon is largely due to the pollution that reaches the sea as a result of deforestation, monoculture farming, industrial waste and destructive fishing methods, especially those using cyanide and dynamite. It is aggravated by the temperature of the oceans. All this helps us to understand how any actions on nature can have

consequences that we do not notice at first glance, and that some forms of exploitation of resources are obtained at the cost of a decline that eventually reaches all the way to the oceans.

42. You need to invest much more in research to better understand the behavior of ecosystems and properly analyze the different variables of the impact of any significant change of the environment. Since all creatures are related to each other, each of their value must be recognized with affection and admiration, and all we created beings need each other. Each region has a responsibility in the care of this family, so it should make a thorough inventory of species it houses, with a view to developing programs and strategies of protection, taking care with particular attention to species in danger of extinction.

IV. DETERIORATION IN THE QUALITY OF HUMAN LIFE AND SOCIAL DEGRADATION

43. If we take into account the fact that the human being is a creature of this world, who has the right to live and be happy, and also has a special dignity, we can not fail to consider the effects of environmental degradation, of the current development model and the culture of waste on people's lives.

44. Today we find, for example, the boundless and disordered growth of many cities that have become unbearable from the point of view of health, not only for the pollution originated by toxic emissions, but also for the urban chaos, the problems of transport and visual pollution and noise. Many large cities are inefficient structures that consume excessive water and energy.

There are areas that, although they have been built recently, are congested and disorderly, without sufficient green spaces. It is not for people on this planet to live increasingly inundated with concrete, asphalt, glass and metals, deprived of physical contact with nature.

45. In some places, rural and urban, the privatization of space has made it difficult for citizens' access to areas of particular beauty; elsewhere they have created residential "greens" only available to a few, where you do so to prevent others from entering a disturbing artificial tranquility. Often there is a beautiful city full of well-tended green spaces in some "safe" areas, but not so in less visible areas, home to society's discarded.

46. Among the social components of global change will include the employment effects of some technological innovations, social exclusion, inequality in the availability and consumption of energy and other services, social fragmentation, the increase in violence and the emergence of new forms of social aggression, drug trafficking and the increasing consumption of drugs among young people, the loss of identity. They are signs, among others, that show how the growth of the last two centuries has no sense of a true integral progress and a better quality of life in all its aspects. Some of these signs are both symptoms of a real social degradation, of a silent rupture of the ties of integration and of social communion.

47. Add to this the dynamics of the media and the digital world, which, when they become ubiquitous, do not favor the development of a capacity to live with wisdom, to think deeply, to love generously. The great sages of the past, in this context, would run the risk of seeing stifled

their wisdom in the noise-dispersive information. This will require an effort to ensure that such media result in a new cultural development of mankind and not in a deeper deterioration of its wealth. True wisdom, the result of reflection, dialogue and encounter between generous people, is not acquired by a mere accumulation of data that eventually saturates and confuses, in a kind of mental pollution. At the same time, the real relationships with others, with all the challenges that imply, tend to be replaced by a type of communication mediated by Internet. This allows you to select or delete relations according to our will, and so it often generates a new type of artificial emotions, which have more to do with devices and screens than with people and nature. The current means allow us to communicate among ourselves and we share knowledge and affection. However, sometimes they also prevent us from making direct contact with the anguish, with the tremor, with the joy of the other and with the complexity of his personal experience. Therefore it should not surprise that, together with the overwhelming offerings of these products, go an increasingly deep and melancholic dissatisfaction in relationships, or a damaging insulation.

V. PLANETARY INEQUITIES

48. The human environment and the natural environment will degrade together, and we cannot adequately address environmental degradation, if we do not pay attention to the causes that have to do with the social and human degradation. In fact, the deterioration of the environment and society affect especially the most vulnerable on the planet: "Both the common experience of ordinary life and scientific research shows that the poorest people suffer the worst effects of all

environmental assaults". [26 Bolivian Episcopal Conference, Pastoral Letter on the environment and human development in Bolivia *El universo, Don de Dios para la vida* (2012), 17.] For example, the depletion of fish stocks penalizes especially those who live on artisanal fishing and not have a substitute, water pollution particularly affects the poorest who do not have the opportunity to buy bottled water, and rising sea level mainly affects impoverished coastal populations that have nowhere to move. The impact of the current imbalances is also manifested in the premature death of many poor, in the conflicts generated by the lack of resources and many other issues that do not find enough space on the agendas of the world. [27 Cf. German Bishops' Conference. Committee on Social Affairs, *Der Klimawandel: Brennpunkt globaler, intergenerationeller und ökologischer Gerechtigkeit* (September 2006), 28-30.]

49. I would observe that often we do not have clear understanding of the problems affecting particularly the marginalized. They are most of the planet, billions of people. Today they are mentioned in political debates and international economics, but mostly it seems that their problems present themselves as an appendix, as a matter to be added almost as an obligation or in a peripheral manner, if not considered a mere collateral damage. In fact, at the moment of concrete implementation, frequently they remain in last place. This is partly due to the fact that many professionals, opinion leaders, media and power centers are located far away from them, in urban areas isolated, with no direct contact with their problems. They live and reflect from

the comfort of a development and a quality of life that are beyond the reach of most of the world population. This lack of physical contact and meeting, sometimes exacerbated by the fragmentation of our cities, help cauterize the conscience and to ignore reality in partial analyses. This sometimes coexists with a "green" discourse. But today we cannot help but recognize that a true ecological approach becomes a social approach, which must integrate environmental justice in the discussions, to hear the cry of the earth as much as the cry of the poor.

50. Instead of solving the problems of the poor and thinking of a different world, some limit themselves to propose a reduction in the birth rate. There is no lack of international pressure on countries in the developing world affecting economic aid to certain policies of "reproductive health". However, "it is true that the unequal distribution of the population and of available resources creates obstacles to development and to a sustainable use of the environment, it should be recognized that demographic growth is fully compatible with an integral and shared development." [28 Pontifical Council for Justice and Peace, Compendium of the Social Doctrine of the Church, 483.] Blaming the increase in population instead of the extreme and selective consumerism of some, is a way to avoid facing problems. So it claims to legitimize the current distribution model, where a minority believes in the right to consume in a proportion that would be impossible to generalize, because the planet cannot even contain the waste of such consumption. In addition, we know that we waste approximately one third of the foods that are produced,

and "the food that is thrown away is as if you steal from the table of the poor." [29 Catechesis (5 June 2013): Teachings 1/1 (2013), 280.] However, it is certain that we must pay attention to the imbalance in the distribution of the population of regions, both nationally and globally, because the increase in consumption would lead to complex regional situations, for combinations of problems of environmental pollution, transport, waste disposal, with the loss of resources, with the quality of life.

51. The inequity affects not only individuals, but whole countries, and forces one to think of ethics in international relations. There is in fact a true "ecological debt", especially between the North and the South, related to trade imbalances with consequences in the context of ecology, as well as the disproportionate use of natural resources historically made by some countries. Exports of some raw materials to satisfy the markets in the industrialized North have produced local damage, such as pollution from mercury in gold mining or sulfur dioxide in the copper. In particular there is to reckon the use of the ambient space around the planet to deposit waste gases that have been accumulating for two centuries and have created a situation that now affects every country in the world. The warming caused by the enormous consumption of some rich countries has an impact in the poorest places on earth, especially in Africa, where the increase in temperature combined with drought has disastrous effects on yields. This is combined with the damage caused by the export to developing countries of solid and liquid toxic pollutants and activity of enterprises in less developed countries

what they can not do in countries that provide their capital: "We often note companies operating so are multinational, they do here what they are not allowed in the developed or the so-called first world. Generally, when they cease their activities and withdraw, leaving large human and environmental damage, such as unemployment, lifeless villages, depletion of some nature reserves, deforestation, depletion of local animals and plants, craters, devastated hills, polluted rivers, and that any social work can no longer support." [30 Bishops of the Region Patagonia-Comahue (Argentina), Mensaje de Navidad (December 2009), 2.]

52. The external debt of poor countries has become an instrument of control, but the same thing does not happen with the ecological debt. In many ways, the people in the developing world, where there are the most important reserves of the biosphere, continue to fuel the development of the richest countries at the price of their present and their future. The land of the poor South is rich and less polluted, but access to ownership of assets and resources to meet their essential needs is forbidden by a system of trade relations and structurally perverse property. It is necessary that developed countries contribute to solving this debt limit so important to the consumption of non-renewable energy, and bringing resources to the countries most in need to promote policies and programs for sustainable development. The regions and the poorest countries are less likely to adopt new models for reducing environmental impact, because they do not have the preparation to develop the necessary processes and cannot cover its costs. Therefore, we must keep a clear

conscience that in climate change there are different responsibilities and, as Bishops of the United States said, it is appropriate to point "especially at the needs of the poor, weak and vulnerable in a debate often dominated by the interests of more powerful". [31 Conference of Catholic Bishops of the United States, Global Climate Change: A Plea for Dialogue, Prudence and the Common Good (15 June 2001).] We must strengthen the awareness that we are one human family. There are no political or social borders and barriers that allow us to isolate ourselves, and for that reason there is not even space for the globalization of indifference.

VI. THE WEAKNESS OF THE REACTIONS

53. These situations cause the cries of sister earth, which are joined to the cries of the abandoned in the world, with a lament that demands from us another route. We never mistreated and insulted our common home as in the last two centuries. Instead, we are called to be instruments of God the Father because our planet is what he has dreamed of creating it and responds to his project of peace, beauty and fullness. The problem is that we do not have yet the culture needed to address this crisis and we need to build leadership indicating routes, trying to meet the needs of current generations including all without compromising future generations. It is essential to create a regulatory system that includes inviolable limits and provides protection to ecosystems, before the new forms of power derived from the techno-economic paradigm end up destroying not only politics but also freedom and justice.

54. Also of note is the weakness of the international political reaction. The submission of politics to

technology and finance proves the failure of world summits on the environment. There are too many special interests and very easily the economic interests get to prevail over the common good and to manipulate information so as not to see their plans affected. In this vein, the Aparecida Document calls "interventions on natural resources are not overridden by the interests of economic groups that irrationally destroy the sources of life"[32 V General Conference of Latin American Bishops, Aparecida Document (June 29, 2007), 471.] The alliance between economics and technology ends up leaving out anything that is not part of their immediate interests. So you might expect only a few superficial proclamations and isolated philanthropy, and even efforts to show sensitivity to the environment, while in reality any attempt of social organizations to change things will be seen as a disorder caused by romantic dreamers or as an obstacle to circumvent.

55. Gradually some countries can show significant progress, the development of more efficient competition controls and a more sincere fight against corruption. Environmental awareness of the people has grown, although not enough to change harmful habits of consumption, which do not seem to recede, but extend and develop. That's what happens, to give just one simple example, with the growing increase in the use and intensity of air conditioners: the markets, looking for immediate profit, stimulate even more demand. If someone was observing from outside the planetary society, he would be stupefied in the face of such behavior that sometimes seems suicidal.

56. In the meantime, the economic powers continue to

justify the current world system, in which speculation and a pursuit for financial rent which tends to ignore each context and the effects on human dignity and the environment prevail. So clearly it reveals that environmental degradation and human and ethical degradation are intimately connected. Many will say that they are not aware of engaging in immoral action, because the constant distraction takes away the courage to realize the reality of a limited and finite world. To this day, "anything that is fragile, like environment, remains defenseless against the interest of the deified market, transformed into absolute rule." [33 Apost. ap. *Evangelii gaudium* (24 November 2013), 56: AAS 105 (2013), 1043.]

57. It is expected that, in the face of the depletion of some resources, one would be creating a favorable scenario for new wars, disguised with lofty claims. War always causes serious damage to the environment and the cultural wealth of the peoples, and the risks become huge when you think of nuclear energy and biological weapons. In fact, "despite international agreements that prohibit chemical, bacteriological and biological warfare, the fact is that in laboratory research there continues to develop new offensive weapons capable of altering the balance of nature." [34 John Paul II, *Message for the Day World Peace 1990*, 12: AAS 82 (1990), 154.] It requires greater attention from policy to prevent and address the causes that can give rise to new conflicts. But the power connected with finance is one that resists this effort, and political designs often lack breadth of vision. Who holding power today wants to be remembered for his failure to intervene when it was urgent and necessary to do so?

58. In some countries there are examples of positive results in improving the environment, as the recovery of some rivers that were polluted for many decades, the recovery of native forests, or the beautification of landscapes with works of environmental recovery, or construction projects of great aesthetic value, progress in the production of non-polluting energy, improving public transport. These actions do not solve global problems, but confirm that the human being is still able to intervene positively. Having been created to love, in the midst of his limits there inevitably sprout gestures of generosity, solidarity and care.

59. At the same time, there grows a superficial or apparent ecology, which consolidates a certain lethargy and a carefree irresponsibility. As often happens in times of deep crisis, that require courageous decisions, we are tempted to think that what is happening is not certain. If we look superficially, beyond some visible signs of pollution and degradation, it seems that things are not so severe and that the planet could remain for a long time under current conditions. We need this evasive behavior to maintain our lifestyles, production and consumption. It is the way in which the human being arranges to feed all self-destructive vices: trying not to see them, struggling to not recognize them, putting off important decisions, acting as if nothing had happened.

VII. Diversity of opinions

60. Finally, we recognize that different views and ways of thinking about the situation and possible solutions have

developed. From one extreme, some argue at all costs the myth of progress and say that environmental problems will be solved simply by new technical applications, without ethical or fundamental changes. On the other extreme, others believe that the human species, with whatever his intervention, can only be a threat and compromise the global ecosystem, so it should reduce its presence on the planet and prevent any kind of intervention. Between these extremes, reflection should identify possible future scenarios, because there is not only one way of solution. This would leave room for a variety of contributions that could enter into dialogue with a view to integral responses.

61. On many concrete issues the Church has no reason to propose a definite word and realizes it must listen and promote honest debate among scientists, respecting differences of opinion. But we only look at reality with sincerity to see that there is a great deterioration of our common home. Hope invites us to recognize that there is always a way out, we can always change course, we can always do something to solve the problems. However, it seems we are experiencing symptoms of a breaking point, because of the great speed of change and degradation, which occur both in regional natural disasters as well as in social or even financial crises, since the problems of the world can not be analyzed nor explained in isolation. There are regions which are already particularly at risk and, beyond any catastrophic prediction, it is certain that the current world system is unsustainable from different points of view, because we have stopped thinking about the purpose of human action: "If you look along regions of our planet, one realizes immediately that humanity has disappointed God's expectations". [35 Id., Catechesis (17 January

2001), 3: L'Osservatore 24/1 (2001), 178.]

CHAPTER TWO

THE GOSPEL OF CREATION

62. Why include in this document, addressed to all people of good will, a chapter related to the convictions of faith? I am aware that, in the field of politics and thought, some strongly reject the idea of a Creator, or consider it irrelevant, the point to be relegated to the realm of the irrational wealth that religions can make for integral ecology and for the full development of the human race. Other times it is assumed that they account for a subculture that simply must be tolerated. However, science and religion, which provide different approaches to reality, may come into a sustained and productive dialogue for both.

I. THE LIGHT THAT FAITH OFFERS

63. If we take into account the complexity of the ecological crisis and its multiple causes, we should recognize that the solutions can not come from a single way to interpret and transform reality. It is necessary to resort to diverse cultural riches of the peoples, art and poetry, to the inner life and spirituality. If you really want to build an ecology that allows us to fix everything that we destroyed, then no branch of science, and no form of wisdom can be neglected, even the religious one with its own language. Moreover, the Catholic Church is open to dialogue with philosophical thought, and this allows it to produce various synthesis between faith and reason. As for social issues, this can be seen in the development of the social doctrine of the Church, called to enrich themselves even more from the new

challenges.

64. On the other hand, even though this Encyclical opens a dialogue with everyone to search together for ways of liberation, I want to show from the beginning as the beliefs of the Christian faith offer, and partly to other believers, high motivation to take care of nature and of our more fragile brothers and sisters. If the mere fact of being human moves people to take care of the environment of which they are part, "Christians, in particular, feel that their tasks within creation and their duty towards nature and the Creator are part of their faith." [36 John Paul II, Message for the World Day of Peace 1990, 15: AAS 82 (1990), 156.] Therefore, it is good for humanity and for the world that we believers better recognize the ecological commitments arising from our beliefs.

II. THE WISDOM OF THE BIBLICAL STORIES

65. Without reproducing here the whole theology of Creation, we wonder what the great biblical stories tell us about the relationship between human beings and the world. In the first story of the creative work in the book of Genesis, God's plan includes the creation of mankind. After the creation of man and woman, it is said that "God saw everything that he had made, and behold, it was very good" (Gen 1:31). The Bible teaches that every human being is created out of love, made in the image and likeness of God (cf. Gen 1:26). This statement shows us the immense dignity of every human person, which "is not just something, but someone. It is capable of knowing, self-possession, free self-giving and entering

into communion with others." [37 Catechism of the Catholic Church, 357.] St. John Paul II recalled how the very special love that the Creator has for each human being "gives infinite dignity." [38 See Angelus in Osnabrück (Germany) with people with disabilities, 16 November 1980: Teachings 3/2 (1980), 1232.] Those who engage in the defense of human dignity can find in the Christian faith the deeper reasons for this commitment. It certainly is wonderful to know that the life of every person is not lost in a hopeless chaos, in a world ruled by pure chance or by cycles that repeat nonsense! The Creator can say to each of us: "Before I formed you in the womb I knew you" (Jer 1,5). We were conceived in the heart of God and therefore "each of us is the result of a thought of God. Each of us is willed, each of us is loved, each of us is necessary." [39 Benedict XVI, Homily for the solemn inauguration of the Petrine ministry (24 April 2005): AAS 97 (2005), 711.]

66. The accounts of creation in Genesis contain, in their symbolic language and narrative, profound teachings on human existence and its historical reality. These stories suggest that human existence is based on three fundamental, closely related relationships: the relationship with God, the one with our neighbor and the one with the earth. According to the Bible, these three vital relationships are broken, not only outside, but also within us. This break is sin. The harmony between the Creator, mankind and all creation has been destroyed for us through having claimed to take the place of God and having refused to recognize ourselves as limited creatures. This has distorted the nature of the mandate to subdue the earth (cf. Gen 1:28) and to grow it and keep it (cf. Gen 2:15). As a result, the originally harmonious relationship between human beings and

nature has turned into a conflict (cf. Gen 3,17-19). It is therefore significant that the harmony that St. Francis of Assisi lived with all creatures has been interpreted as a healing of this rupture. St. Bonaventure said that through the universal reconciliation with all creatures in some way Francis was returned to the state of original innocence. [40 See *Legenda Maior*, VIII, 1: FF 1134.] Far from that model, today sin is manifested by all its strength of destruction in wars, in the various forms of violence and abuse, abandonment of the most fragile, in the attacks against nature.

67. We are not God. The earth came before us and was given to us. This allows you to answer an accusation launched against the Jewish-Christian thought: it was said that, from the Genesis account that invites you to subdue the earth (cf. Gen 1:28), would be favored the uncontrolled exploitation of nature by presenting an image of the human being as domineering and destructive. This is not a correct interpretation of the Bible as understood by the Church. Although it is true that sometimes Christians have interpreted the Scriptures incorrectly, today we must reject with force that from being created in the image of God and the mandate to subdue the earth we can deduce an absolute dominion over other creatures. It is important to read the biblical texts in their context, with a right hermeneutic, and remember that they invite us to "till and keep" the garden of the world (cf. Gen 2:15). While "till" means to plow or work soil, "keep" means protect, heal, preserve, maintain, supervise. This implies a mutual responsibility between human beings and nature. Each community can take the goodness of the earth what they need for their survival, but also has a duty to protect it and ensure continuity of its fertility for

future generations. Ultimately, "the earth is the Lord's" (Ps 24.1), belongs to him, "the earth and all that therein is" (Deut 10:14). Therefore, God denies any claim of freehold: "The land shall not be sold in perpetuity, for the land is mine and you are but aliens and at guests" (25:23).

68. This responsibility before of an earth that belongs to God, implies that the human being, endowed with intelligence, respecting the laws of nature and the delicate balance between the beings of this world, because "he commanded and they were created. And it established them for ever forever; He has set a decree which shall not pass" (Ps 148,5b-6). It follows that the biblical law is to stop proposing to human beings various standards, not only in relation to other human beings, but also in relation to other living beings: "If you see the ass of your brother or his ox fell along the way, do not pretend to not hide thyself from them [...]. When, along the way, you find a tree or on the ground a bird's nest or eggs and the mother who is brooding birds or the eggs, do not take the mother who is with the children "(Dt 22,4.6). In this line, the rest of the seventh day is proposed not only for humans, but also "so that your ox and your donkey can enjoy quiet " (Exodus 23:12). So we realize that the Bible does not give rise to a despotic anthropocentrism without the interests of other creatures.

69. While we can make responsible use of things, we are called to recognize that other living things have a value in front of God and "with their mere existence they bless him and give him glory," [41 Catechism of the Catholic Church, 2416.] because the Lord rejoices in his works (cf. Ps 104,31). Because of his unique dignity and being

endowed with intelligence, the human being is called to respect creation with its domestic laws, since "the Lord founded the earth with wisdom" (Proverbs 3:19). Today the Church does not say in a simplistic way that other creatures are completely subordinated to the good of the human being, as if they have a value in themselves and we could dispose of at will. So the Bishops of Germany explained that all creatures "one could talk about the priority of being, compared to being useful." [42 German Bishops' Conference, *Zukunft der Schöpfung - Zukunft der Menschheit. Erklärung der Deutschen Bischofskonferenz zu Fragen der Umwelt und der Energieversorgung* (1980), II, 2.] The Catechism puts into question in a very direct and insistent manner that it would be a deviant anthropocentrism: "Every creature has its own goodness and his own perfection [...] The various creatures, willed in their own being, reflect, each in its own way a ray of God's infinite wisdom and goodness. For this man must respect the particular goodness of every creature, to avoid disordered use of things. " [43 Catechism of the Catholic Church, 339.]

70. In the story of Cain and Abel, we see that jealousy drove Cain to take the extreme injustice against his brother. This in turn has caused a breakdown in the relationship between Cain and God and between Cain and the earth, from which he was exiled. This step is summarized in the dramatic dialogue between God and Cain. God asks, "Where is Abel your brother?". Cain says he does not know and God insists: "What have you done? The voice of your brother's blood cries out to me from the land! Now you are cursed, away from [this] land" (Gen 4.9 to 11). Neglecting the commitment to cultivate and maintain a proper relationship with others, for which I have a duty of care and custody, it destroys my

inner relationship with myself, with others, with God and with the land. When all these relations are neglected, when justice does not live on earth, the Bible tells us that all life is in danger. This is what the story of Noah tells us, when God threatens to wipe out humanity for its continuing failure to live up to the demands of justice and peace: "I am going to put an end to all people, for the earth is filled with violence because of them." (Gen 6:13). In these stories so ancient, and rich with deep symbolism, was already contained a conviction heard today: that everything is related, and that the genuine care of our own life and our relationship with nature is inseparable from fraternity, justice and loyalty towards others.

71. Although "the wickedness of man was great in the earth" (Gen 6.5) and God "regretted having made man on the earth" (Gen 6.6), however, through Noah, who still retained integrity and fairness, God decided to open a path to salvation. Thus it gave mankind the possibility of a new beginning. It is enough that there is a good man because there is hope! The biblical tradition makes it clear that this rehabilitation involves the re-discovery and compliance with the rhythms inscribed in nature from the hand of the Creator. This is seen, for example, in the law of Shabbat. On the seventh day, God rested from all his works. God commanded Israel that every seventh day was to be celebrated as a day of rest, one Shabbat (cf. Gen 2,2-3; Ex 16,23; 20,10). Similarly, a year off was established to Israel and its land, every seven years (cf. Lv 25.1 to 4), in which he allowed a complete rest to the land, not sowed and gathered only that needed to survive and offer hospitality (cf. Lv 25.4 to 6). Finally, when seven weeks of years, that is forty-nine years, elapsed, he celebrated the jubilee year of forgiveness and

universal "liberation in the land to all its inhabitants" (Lev 25:10). The development of this legislation has sought to ensure the balance and fairness in the relationship of human beings with each other and with the land where he lived and worked. But, at the same time, it was a recognition of the fact that the gift of the earth with its fruits belong to all the people. Those who cultivated and guarded the territory had to share the fruits, especially with the poor, widows, orphans and strangers: "When you reap the harvest of your land, do not reap to the very edges of the field, nor reap what remains to be glean the harvest; As for your vineyard, you do not gather the gleanings or gather the fallen grapes: Leave them for the poor and the alien "(Lev 19.9 to 10).

72. The Psalms invite frequently the human being to praise God the Creator, the One who "spread out the earth upon the waters, for his love endures forever" (Ps 136,6). But they also invite other creatures to praise: "Praise him, sun and moon, praise him, all shining stars. Praise him, highest heavens and you waters above the heavens. Let them praise the name of the Lord, for he commanded and they were created "(Ps 148.3-5). We exist not only through the power of God, but in front of Him and with Him. Thus we adore him.

73. The writings of the prophets invite us to regain strength in difficult moments contemplating the powerful God who created the universe. The infinite power of God does not bring us to escape his paternal tenderness, because in Him love and strength are combined. In fact, every healthy spirituality implies at the same time we receive divine love and worship the Lord with trust in his infinite power. In the Bible, the God

who liberates and saves is the same that created the universe, and these two ways of acting divine are intimately and inextricably linked: "Ah, Lord God, with your great power and your strength you did create heaven and earth; nothing for you is impossible [...]. You took your people out of Egypt to Israel with signs and wonders" (Jer 32,17.21). "Lord is the everlasting God, the Creator of the ends of the earth. He will not grow tired or weary, and his understanding no one can fathom.. He gives strength to the weary and increases the power of the weak"(Is 40,28b-29).

74. The experience of slavery in Babylon brought about a spiritual crisis that led to a deepening of faith in God, explaining his creative omnipotence, to exhort the people to find hope in the midst of their unhappy situation. Centuries later, in another time of trial and persecution, when the Roman Empire tried to impose an absolute rule, the faithful returned to find comfort and hope by increasing their trust in Almighty God, and sang: "Great and wonderful are your works, Lord God Almighty; just and true are your ways!" (Rev 15,3). If God could create the universe out of nothing, he can also intervene in this world and defeat every form of evil. Therefore, the injustice is not invincible.

75. We cannot support a spirituality that forgets God the almighty and creator. In this way, we would end up worshiping other powers of the world, or we would place ourselves in the seat of the Lord, so far as to purport to tread upon the reality created by Him without knowing the limit. The best way to place the human being in his place and put an end to his claim to be an absolute ruler of the earth, is to return to propose the

figure of a Father creator and sole master of the world, because otherwise the human being will always tend to want to impose on reality his own laws and his own interests.

III. THE MYSTERY OF THE UNIVERSE

76. In the Judeo-Christian tradition, to say "creation" is to say nature, because it has to do with a loving plan of God, where every creature has a value and meaning. Nature is often understood as a system that analyzes itself, comprises itself and manages itself, but the creation can only be understood as a gift which flows from the open hand of the Father of all, as a reality illuminated by the love that calls us to a universal communion.

77. "By the word of the Lord the heavens were made" (Ps 33.6). So it is indicated that the world comes from a decision, not by chaos or randomness, and this implies even more. There is a free choice expressed in the creative word. The universe is not born as a result of arbitrary omnipotence, of a show of force or a desire for self-affirmation. The creation belongs to the command of love. The love of God is the fundamental reason of all creation: "For you love all things that exist and not try disgust for any of the things which you have made; if you had hated something, you would not have formed" (Wisdom 11:24). So, every creature is the subject of the tenderness of the Father, which gives her a place in the world. Even the ephemeral life of the most insignificant being is the subject of his love, and in those few seconds of existence, He surrounds them with his affection. St. Basil the Great said that the Creator is also "the goodness without calculation," [44 Hom. in Hexaemeron, 1, 2, 10:

PG 29, 9.] and Dante Alighieri spoke of "the love that moves the sun and other stars." [45 Divine Comedy. Paradiso, Canto XXXIII, 145.] Therefore, the works created ascend "up to his loving mercy." [46 Benedict XVI, catechesis (Nov. 9, 2005), 3: Insegnamenti1 (2005), 768.]

78. At the same time, Jewish-Christian thought has demythologized nature. Without stopping to admire it for its beauty and its immensity, it has not been given a more divine character. In this way our commitment to it will be further underscored. A return to nature can not be at the expense of the freedom and responsibility of the human being, who is the part of the world with the task of cultivating their ability to protect and develop its potential. If we recognize the value and fragility of nature, and at the same time the capabilities that the Creator has given us, this allows us to end the modern myth of unlimited material progress. A fragile world, with a human being to whom God entrusted its care, challenges our intelligence to recognize how we should orient, cultivate and limit our power.

79. In this universe, composed of open systems that come into communication with each other, we can find many forms of relationship and participation. This also leads us to think about the set as open to the transcendence of God, in which it develops. Faith enables us to interpret the meaning and the mysterious beauty of what happens. Human freedom can offer its intelligent contribution towards a positive development, but it can also add new evils, new causes of suffering and moments of retreat. This gives rise to the thrilling and dramatic human story, capable of being transformed into a hive of

liberation, growth, salvation and love, or in a process of decay and of mutual destruction. Therefore, the action of the Church not only tries to remember the duty to take care of nature, but at the same time "must above all protect mankind against the destruction of himself." [47 Id., Lett. Enc. Caritas in Veritate (29 June 2009), 51: AAS 101 (2009), 687.]

80. Nevertheless, God, who wants to work with us and rely on our collaboration, it is also able to take something good from the evil that we do, because "the Holy Spirit has infinite inventiveness, proper to the divine mind, who knows cater to untie the knots of human affairs even more complex and impenetrable. " [48 John Paul II, Catechesis (24 April 1991), 6: Teachings 14/1 (1991), 856.] In some way, he wanted to limit himself to create a world in need of development, where many things that we consider evil , hazards or sources of suffering, in reality are part of the pain of childbirth, which encourage us to collaborate with the Creator. [49 The Catechism teaches that God wanted to create a world on the way up to its ultimate perfection, and that this implies a physical presence of imperfection and evil: cf. Catechism of the Catholic Church, 310.] He is present in the most intimate of all things without affecting the autonomy of her child, and this gives rise to the legitimate autonomy of earthly realities. [50 cf. Conc. Vatican Ecumenical Council. Vat. II, Const. past. Gaudium et Spes on the Church in the Modern World, 36.] This divine presence, which ensures continuity and development of all beings, "is a continuation of the creative action." [51 Thomas Aquinas, Summa Theologiae I, q. 104, art. 1 to 4.] The Spirit of God filled the universe with the potential to allow that from the womb of the same things can always sprout something

new: "Nature is nothing but the reason for some art, especially of divine art, inscribed in things, so the same things are moving toward a certain end. As if the master shipbuilder could allow the timber to move by itself to take the shape of the ship." [52 Id., In octo libros Physicorum Aristotelis expositio, lib. II, lectio 14.]

81. The human being, although suppose also evolutionary processes, involves a novelty not fully explained by the evolution of other open systems. Each of us has a personal identity itself able to enter into dialogue with others and with God himself. The capacity for reflection, reasoning, creativity, interpretation, processing and other artistic skills original show a singularity that transcends the physical and biological. The new quality implied by the rise of a personal being inside the material universe presupposes a direct action of God, a special call to the life and relationship of a You to another you. Starting from the biblical texts, we consider the person as a subject, which can never be reduced to the category of object.

82. However, it would also be wrong to think that other living beings should be regarded as mere objects subject to the arbitrary rule of the human being. When you propose a vision of nature only as an object of profit and interest, it also carries serious consequences for society. The vision that strengthens the will of the stronger favored immense inequality, injustice and violence for most of humanity, because resources become the property of the first come, or one that has more power: the winner takes all. The ideal of harmony, justice, brotherhood and peace that Jesus offers is the opposite of that model, and so he expressed it, referring to the powers of his time: "The rulers of the nations lord it over

them, and their leaders oppress them. It will not be so among you; but whoever wants to become great among you must be your servant" (Mt 20.25 to 26).

83. The goal of the journey of the universe is in the fullness of God, which has already been achieved by the risen Christ, the center of universal maturity. [53 In this perspective, there is the contribution of Father Teilhard de Chardin; cf. Paul VI, Address on a chemical-pharmaceutical factory (24 February 1966): Teachings 4 (1966), 992- 993; John Paul II, Letter to the Reverend Father George V. Coyne (June 1, 1988): Teachings 11/2 (1988), 1715; Benedict XVI, Homily at Vespers in Aosta (July 24, 2009): Teachings 5/2 (2009), 60.] In this way, we add an additional argument to reject any despotic and irresponsible dominion of the human being over the other creatures. We are not the ultimate goal of the other creatures. Instead all advance, together with us and through us, towards the common goal, which is God, in a transcendent fullness where the risen Christ embraces and illuminates everything. The human being, in fact, endowed with intelligence and love, and drawn to the fullness of Christ, is called to bring all creatures to their Creator.

IV. THE MESSAGE OF EVERY CREATURE IN THE HARMONY OF ALL CREATION

84. To insist in saying that the human being is the image of God should not make us forget that every creature has a function and nothing is superfluous. All the material universe is a language of God, of his boundless love for us. Soil, water, mountains, everything is God's caress. The story of one's friendship with God develops more in a geographical space that becomes a very personal mark, and everyone keeps in mind the places whose memories

are so good. He who grew up in the mountains, or a child who was sitting beside the stream to drink, or who played in a square of his neighborhood, when he returns to those places feels called to recover his identity.

85. God has written a wonderful book, "whose letters are the multitude of creatures in the universe." [54 John Paul II, Catechesis (30 January 2002), 6: Teachings 25/1 (2002), 140.] The bishops of Canada have expressed well that no creature is out of this manifestation of God: "Come over to the sweeping vistas more slender forms of life, nature is a constant source of wonder and reverence. It is also a continuing revelation of the divine. " [55 Conference of Catholic Bishops of Canada. Social Affairs Committee, Pastoral Letter "You Love All That Exists ... All Things Are Yours, God, Lover of Life" (4 October 2003), 1.] The Bishops of Japan, for their part, have said something very striking: "Perceiving every creature who sings the anthem of its existence is to live with joy in God's love and hope. " [56 Catholic Bishops' Conference of Japan, Reverence for Life. A Message for the Twenty-First Century (1 January 2001), 89.] This contemplation of creation allows us to discover everything through some teaching that God wants to communicate, because "for the believer to contemplate creation is also to hear a message, hear a paradoxical and silent voice." [57 John Paul II, Catechesis (26 January 2000), 5: Teachings 23/1 (2000), 123.] We can say that "In addition to the revelation itself in Sacred Scripture is, therefore, a divine manifestation in the blaze of the sun and the fall of the night. " [58 Id., Catechesis (August 2, 2000), 3: L'Osservatore 23/2 (2000), 112.] By paying attention to this event, the human being learns to recognize itself in

relation to other creatures: "I express myself expressing the world; I explore my deciphering the sacredness of the world. " [59 Paul Ricoeur, *Philosophie de la volonté*. 2. *Finitude et Culpabilité*, Paris 2009, 216 (trans. Trans. : finitude and guilt, Bologna, 1970, 258).]

86. The whole of the universe, with its multiple relationships, shows best the inexhaustible richness of God. St. Thomas Aquinas pointed out wisely that the multiplicity and variety come from "the intention of the first agent," Whom wanted "what is lacking in each thing to represent the divine goodness is compensated by other things," [60 *Summa Theologica* I, q. 47, art. 1.] that his goodness "can not be adequately represented by one creature." [61 *Ibid.*] For this, we need to grasp the variety of things in their multiple relationships. [62 Cf. *ibid.*, Art. 2, ad. 1; art. 3.] Therefore, we understand better the importance and significance of any creature, if we contemplate it jointly in the overall plan of God. This the Catechism teaches: "The interdependence of creatures is willed by God. The sun and the moon, the cedar and the little flower, the eagle and the sparrow: the countless diversities and inequalities tells us that no creature is self-sufficient, that they exist only in dependence on each other, to complete each other, in the service one another ". [63 *Catechism of the Catholic Church*, 340.]

87. When you realize the reflection of God in all that exists, the heart experiences the desire to worship the Lord for all his creatures, and along with them, as it appears in the beautiful song of St Francis of Assisi, "Praised be, 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. Praised be, my Lord, through Sister Moon and the stars; in the heavens You have made them bright, precious and beautiful. Praised be, my Lord, through Brothers Wind and Air, and clouds and storms, and all the weather, through which You give Your creatures sustenance. Praised be, my Lord, through Sister Water; she is very useful, and humble, and precious, and pure. Praised be, my Lord, through Brother Fire, through whom You brighten the night. He is beautiful and cheerful, and powerful and strong." [64 Canticle of the Sun: FF 263.]

88. The Bishops of Brazil have stressed that all of nature, in addition to expressing God, is the place of his presence. In every creature lives his life-giving Spirit that calls us to a relationship with Him. [65 Cf. National Conference of Brazilian Bishops, *A Igreja and Questão ecológica*, 1992, 53-54.] The discovery of this presence stimulates in us the development of "ecological virtues." [66 *Ibid.*, 61.] But when we say this, we do not forget that there is also an infinite distance, that the things of this world do not have the fullness of God. Otherwise we would not even be good to creatures, because we would not recognize their own just and authentic place, and we would end up requiring unduly from them what in their smallness cannot give us.

V. A UNIVERSAL COMMUNION

89. The creatures of this world can not be considered without a good owner, "I am yours, Lord, lover of life" (Wis 11:26). This leads to the belief that, having been created by the same Father, all we beings in the universe are united by invisible ties and form a kind of universal

family, a sublime communion that drives us to a sacred respect, loving and humble. I want to remember that "God has united us so closely to the world around us, that desertification of soil is like a disease for everyone, and we can lament the extinction of a species like a mutilation." [67 Apost. ap. Evangelii gaudium (24 November 2013), 215: AAS 105 (2013), 1109.]

90. This is not to equate all living beings and remove that value peculiar to the human being that implies both a tremendous responsibility. Neither does it lead to a deification of the earth, which would deprive us of the call to collaborate with it and protect its fragility. These conceptions would create new imbalances in an attempt to escape from reality that challenges us. [68 Cf. Benedict XVI, Enc. Lett. Caritas in Veritate (29 June 2009), 14: AAS 101 (2009), 650.] It feels sometimes the obsession to deny the human person any prominence, and is pursuing a struggle for other species that we do not enact to defend the equal dignity of human beings. Certainly we have to worry that other living beings are not treated in an irresponsible way, but we should be ashamed especially by the enormous inequalities that exist between us, because we continue to tolerate that some consider themselves more worthy than others. We do not realize that some more toil in abject poverty, with no real possibility of improvement, while others do not even know what to do with their possessions, flaunt with vanity an alleged superiority and leave behind them a level of waste that would be impossible to generalize it without destroying the planet. We continue in fact to admit that some feel more human than others, as if they were born with more rights.

91. It cannot be a genuine feeling of intimate union with other beings of nature, if at the same time in the heart there is no tenderness, compassion and concern for human beings. Clearly, the inconsistency of those who fight against the trafficking of animals in danger of extinction, but remain completely indifferent to trafficking in persons, is indifferent to the poor, or is determined to destroy another human being that he is not welcome. This undermines the sense of struggle for the environment. It is no coincidence that, in the song that praises God for creatures, Francis added: "Praised be my Lord, through those who give pardon for your love." Everything is connected. For this it requires a concern for the environment combined with the sincere love for human beings and a constant commitment to the problems of society.

92. On the other hand, when the heart is truly open to a universal communion, nothing and no one is excluded from this fraternity. Consequently, it is also true that the indifference or cruelty to other creatures of this world always end up moving to how we treat other human beings. The heart is one and the same misery that leads to mistreat an animal is soon to appear in relation to other people. Any mistreatment towards any creature "is contrary to human dignity." [69 Catechism of the Catholic Church, 2418.] We can not consider ourselves people who really love our interests if we exclude a part of reality, "Peace, justice and protection of creation are three matters completely connected, that you can not separate in order to be treated individually, on pain of falling back into reductionism." [70 Conference of the Dominican, Pastoral Letter Sobre la relación del hombre with naturaleza (15 March 1987).] Everything is related, and all human beings are united as brothers and sisters

in a wonderful pilgrimage, bound by the love God has for each of his creatures and unites us also, with tender affection, to brother sun, sister moon, to brother river and to Mother Earth.

VI. THE COMMON DESTINATION OF GOODS

93. Today, believers and non-believers alike agree that the earth is essentially a common heritage, the fruits of which should go to the benefit of all. For believers, this becomes a matter of loyalty to the Creator, because God created the world for all. Consequently, every ecological approach must integrate a social perspective that takes into account the fundamental rights of the most disadvantaged. The principle of the subordination of private property to the universal destination of goods and, therefore, the universal right to their use, is a "golden rule" of social behavior, and the "first principle of the whole ethical and social order." [71 John Paul II, Enc. Lett. *Laborem Exercens* (14 September 1981), 19: AAS 73 (1981), 626.] The Christian tradition has never recognized as absolute or inviolable right to private property, and emphasized the social function of any form of private property. St. John Paul II recalled emphatically that doctrine, saying that "God gave the earth to the whole human race for the sustenance of all its members, without excluding or favoring anyone." [72 Lett. Enc. *Centesimus Annus* (May 1, 1991), 31: AAS 83 (1991), 831.] These words are weighty and strong. He remarked that "it would not be truly worthy of man a kind of development that does not respect and promote human rights, personal and social, economic and political, including the rights of nations and peoples". [73 Lett. Enc. *Ioannis Pauli PP* (30 December 1987), 33: AAS 80 (1988), 557.] With great clarity he explained that "the

Church defends yes the legitimate right to private property, but also teaches with no less clarity that on any private property rests always a social mortgage, because the assets serve the general purpose that God has given them." [74 speech to the indigenous and the campesinos of Mexico, Cuilapan (29 January 1979) , 6: AAS 71 (1979), 209.] Thus says that "it is not according to God's plan to manage this gift so that its benefits are only for the benefit of a few." [75 Homily at the Mass celebrated by the Farmers in Recife, Brazil (July 7, 1980), 4: AAS 72 (1980), 926.] This casts serious doubts on the unjust habits of a part of humanity. [76 Cf. Message for the World Day of Peace 1990, 8 : AAS 82 (1990), 152.]

94. The rich and the poor are equal in dignity, because "the Lord created the one and the other" (Pr 22,2), "he created the small and the great" (Wis 6,7), and "he makes his sun rise on the evil and the good" (Mt 5,45). This has practical consequences, such as those set out by the Bishops of Paraguay: "Every farmer has the natural right to possess a reasonable plot of land, where it can establish his household, to work for the support of his family and have security for their own existence. This right must be guaranteed so that its exercise is not illusory but real. Which means that in addition to the title of the property, the farmer must rely on means of technical training, loans, insurance and market access".[77 Paraguayan Episcopal Conference, Pastoral Letter *El campesino paraguayo y la tierra* (12 June 1983), 2, 4, d.]

95. The environment is a collective heritage of all humanity and the responsibility of all. Who owns part is

only to administer it for the benefit of all. If we do not, we load on the conscience the weight of denying the existence of others. For this reason the Bishops of New Zealand have wondered what it means the commandment "Thou shalt not kill" when "a twenty percent of the world population consumes resources to an extent that steal from poor nations and to future generations what they need to survive". [78 Episcopal Conference of New Zealand, Statement on Environmental Issues, Wellington (1 September 2006).]

VII. THE GAZE OF JESUS

96. Jesus takes up the biblical faith in God the Creator and brings out a fundamental fact: God is the Father (cf. Mt 11:25). In the dialogues with his disciples, Jesus invited them to recognize the paternal relationship that God has with all creatures, and reminded them with a touching tenderness as each of them is important in his eyes: "Are not five sparrows sold for two pennies? Yet not one of them is forgotten before God" (Lk 12,6). "Look at the birds of the air: for they sow nor reap nor gather into barns; yet your heavenly Father feeds them" (Mt 6:26).

97. The Lord could invite others to be attentive to the beauty that is in the world, because he himself was in continuous contact with nature and paying attention full of affection and awe. When he walked every corner of his land, he stopped to contemplate the beauty sown by his Father, and he invited the disciples to grasp things in a divine message: "Lift up your eyes and look at the fields, are already white for harvest" (Jn 4.35). "The kingdom of heaven is like a mustard seed, which a man took and sowed in his field. It is the smallest of all seeds, but when

it is grown, it is bigger than the other garden plants and becomes a tree "(Mt 13,31-32).

98. Jesus lived a perfect harmony with creation, and the others were astonished: "Who is this man, that even the winds and the sea obey him?" (Mt 8:27). He did not look like an ascetic separated from the world, or enemy of the nice things of life. Referring to himself he said: "It is the Son of man came eating and drinking, and they say: 'Here is a glutton and a drunkard'" (Mt 11,19). He was far from the philosophies that despised the body, matter and the realities of this world. However, these unhealthy dualisms have had a significant influence on some Christian thinkers throughout history and have distorted the Gospel. Jesus worked with his hands, taking daily contact with matter created by God to shape it with his skills as a craftsman. It is noteworthy the fact that most of his life has been devoted to this effort, in a simple life that did not arouse any admiration: "Is not this the carpenter, the son of Mary?" (Mk 6,3) . So he hallowed work and conferred it a special value for our maturation. St. John Paul II taught that "enduring the toil of work in union with Christ crucified for us, man in a way collaborates with the Son of God for the redemption of humanity." [79 Lett. Enc. Laborem Exercens (14 September 1981), 27: AAS 73 (1981), 645.]

99. According to the Christian understanding of reality, the fate of the whole creation through the mystery of Christ, which is present from the beginning: "All things were created through him and for him" (Col 1 , 16). [80 For this reason, St. Justin could speak of "seeds of the Word" in the world: cf. II Apologia 8, 1-2; 13, 3-6: PG 6.457 to 458; 467.] The prologue of the Gospel of John

(1,1-18) shows the creative activity of Christ as the divine Word (Logos). But this prologue is surprising in its statement that this Word "became flesh" (Jn 1:14). A Person of the Trinity has entered the created cosmos, sharing the fate up to the cross. Since the beginning of the world, but especially from the Incarnation, the mystery of Christ works in a hidden way in the whole of natural reality, without undermining its independence.

100. The New Testament not only tells us about the earthly Jesus and his relationship so real and loving with the world. He is also shown risen and glorious, present in all creation with his universal lordship: "For God was pleased to have all his fullness dwell in him, 20 and through him to reconcile to himself all things, whether things on earth or things in heaven, by making peace through his blood, shed on the cross."(Col 1,19-20). This propels us to the end of time, when the Son will deliver all things to the Father, so that "God may be all in all" (1 Cor 15:28). Thus, the creatures of this world there appear more than as a merely natural reality, because the Risen mysteriously surrounds and inspires them to a destiny of fullness. The same flowers of the field and the birds that He contemplated admiringly with his human eyes, are now full of his luminous presence.

CHAPTER THREE

THE ROOT OF HUMAN ECOLOGICAL CRISIS

101. Nothing will serve to describe the symptoms, if we do not recognize the human root of the ecological crisis. There is a way of understanding life and human action that strays and that contradicts the reality to the point of ruin. Why cannot we stop and think about this? I propose therefore to focus on the technocratic paradigm dominant in place that deals with the human being and his action in the world.

I. Technology: creativity and power

102. Humanity has entered a new era in which the power of technology puts us at a crossroads. We are the heirs of two centuries of huge waves of change: the steam engine, the railroad, the telegraph, electricity, the automobile, the airplane, the chemical industry, modern medicine, computer science and more recently the digital revolution, robotics, biotechnology and nanotechnology. It is right to rejoice for these advances and be excited before the wide possibilities that we open with these novelties, because "science and technology are a wonderful product of human creativity that is a gift of God." [81 John Paul II, Address to representatives of science, culture and of Higher Studies of the United Nations University, Hiroshima (25 February 1981), 3: AAS 73 (1981), 422.] The transformation of nature for purposes of utility is a feature of the human race since its beginnings, and

thus technology "expresses the inner tension that impels him gradually to overcome to the material limitations." [82 Benedict XVI, Enc. Lett. Caritas in Veritate (29 June 2009), 69: AAS 101 (2009), 702.] Technology has remedied many ills that plagued and limited human beings. It is not possible not to appreciate and give thanks for the progress achieved, especially in medicine, engineering and communications. And how can we recognize all the efforts of many scientists and engineers who have developed alternatives for sustainable development?

103. Techno-science, well-oriented, is able not only to produce really valuable things for improving the quality of life of the human being, from objects of domestic use to great means of transport, to bridges, to buildings, to public spaces. It is also able to produce beauty and to achieve for the human being, in the material world, the "leap" in the field of beauty. You cannot deny the beauty of an airplane, or some skyscrapers, can you? There are precious paintings and music obtained through the use of new technical tools. Thus, the desire for beauty and the craftsman who contemplates that beauty takes the leap to a certain, properly human fullness.

104. Nevertheless, we cannot ignore that nuclear energy, biotechnology, information technology, knowledge of our own DNA and other potentiality that we have acquired offers a tremendous power. Indeed, they give those who hold the knowledge and especially the economic power to exploit a

impressive domain of the whole human race and the whole world. Mankind has never had so much power over itself and no guarantee that it will use well, especially considering the way in which it is availing itself. Just remember the atomic bombs dropped in the middle of the twentieth century, as the largest deployment of technology flaunted by Nazism, communism and other totalitarian regimes at the service of the extermination of millions of people, not to mention that now war has more and more deadly tools. In whose hands and in whose reach is so much power? It's terribly risky that it resides in a small part of humanity.

105. There is a tendency to believe that "every purchase of power is simply progress, increasing safety, utility, well-being, vitality, fullness of values", [83 Romano Guardini, *Das Ende der Neuzeit*, 19659 Würzburg, 87 (ed. trans .: *The End of the Modern*, Brescia 1987, 80).] as if reality, the beneficial, and the truth effloresces spontaneously from the very power of technology and the economy. The fact is that "modern man was not brought up in the right use of power," [84 *Ibid.* (Ed. Trans .: 81).] because the immense technological growth has not been accompanied by the development of the human being with regard to responsibility, values and conscience. Every age tends to develop poor self-awareness of its own limitations. It is therefore possible that today humanity does not feel the seriousness of the challenges it faces, and "man's ability to use its power of evil is growing" when "there are no rules of freedom, but only the claimed necessity of utility and security. "[85 *Ibid.*, 87-88 (ed. trans .: 81).] The human being is not fully

autonomous. His freedom is sick when he surrenders to the blind forces of the unconscious, of immediate needs, selfishness, brutal violence. In this sense, he is naked and exposed before his own power that continues to grow, without having the tools to control it. He may have superficial mechanisms, but we can say that he lacks adequate solid ethics, a culture and a spirituality that really give a limit and contain it within a lucid self-control.

II. THE GLOBALIZATION OF THE TECHNOCRATIC PARADIGM

106. The fundamental problem is another, even more profound: the matter-of-fact way humanity has taken technology and its development together with a uniform and one-dimensional paradigm. In this paradigm stands a conception of the subject that gradually, in the logico-rational process, understands and thereby owns the object that is outside. This subject is expressed in the establishment of the scientific method with its experimentation, which is already explicitly a technique of possession, dominion and transformation. It is as if the subject were facing the formless reality completely open to manipulation. The intervention of human being in nature has always been the case, but for a long time has had the accompanying feature, of favoring the possibilities of things themselves. It was to receive what the natural reality itself allows, as a reaching out. Conversely, what matters now is to extract everything possible from things through the imposition of the human hand, which tends to ignore or forget the very image of what he had

before. In this way human beings and things have ceased to give each other a friendly hand, instead becoming contenders. From here you can go easily to the idea of infinite or unlimited growth, which has so impressed economists, theorists of finance and of technology. This presupposes the lie about the infinite availability of goods on the planet, leading to "squeeze" to the limit and beyond the limit. This is the false assumption that "there is an unlimited amount of energy and usable resources, that their immediate regeneration is possible and that the negative effects of the manipulation of nature can be easily absorbed." [86 Pontifical Council for Justice and Peace, Compendium of the Social Doctrine of the Church, 462.]

107. We can therefore say that the cause of many problems in the world today there is first a tendency, not always conscious, to set the methodology and the objectives of science and technology according to a paradigm of understanding that affects people's lives and the functioning of society . The effects of the application of this model to all of reality, human and social, are found in degradation of the environment, but this is just a sign of reductionism that affects human life and society in all their dimensions. It must be recognized that the products of technology are not neutral, because they create a story that ends up influencing lifestyles and guides the social possibilities in the direction of the interests of certain powerful groups. Certain choices that seem purely instrumental, are actually choices relevant to

the type of social life intended to be developed.

108. You can not think of supporting another cultural paradigm and use of technology as a mere tool, because today the technocratic paradigm has become so dominant that it is very difficult regardless of one's resources, and even more difficult is to use one's resources without being dominated by its logic. It has become counter-cultural to choose a lifestyle with objectives that can be at least partially independent of technology, its costs and its globalizing power and overpowering. In fact, technology has a tendency to let anything remain outside its iron logic, and "the man who is the protagonist knows that, ultimately, it is neither utility nor welfare, but dominion; dominion in the extreme sense of the word." [87 Romano Guardini, *Das Ende der Neuzeit*, 63-64 (ed. trans. : The end of the modern age, 58).] Thus, "trying to grasp the elements of nature and together those of human existence." [88 *Ibid.*, 64 (ed. trans. : 58).] This reduces the ability of decision, the more authentic freedom and the space for alternative creativity from individuals.

109. The technocratic paradigm tends to exert its dominance also on the economy and politics. The economy takes every technological development in function of profit, without paying attention to possible negative consequences for human beings. Finance stifles the real economy. We have not learned the lessons of the global financial crisis and very slowly one learns that about environmental deterioration. In some circles it is argued that the current economy and technology will solve all

environmental problems, the same way one says, with a non-academic language, that the problems of hunger and poverty in the world will be solved simply with market growth. It is not a matter of economic theory, that perhaps no one today dares to defend, but their settlement in the factual development of the economy. Those who do not argue with the words support it with deeds, when one does not seem to worry about the right level of production, a better distribution of wealth, a responsible care for the environment or the rights of future generations. The behavior says that the goal of maximizing profits is sufficient. The market alone does not ensure integral human development and social inclusion. [89 Cf. Benedict XVI, Enc. Lett. Caritas in Veritate (29 June 2009), 35: AAS 101 (2009), 671.] In the meantime, we have a "sort of a wasteful and consumerist overdevelopment which forms an unacceptable contrast with the ongoing situations of dehumanizing deprivation" [90 Ibid., 22: p. 657.] while we are not developing fast enough the economic institutions and social programs that enable the poor to access resources on a regular basis. There is not enough awareness of what are the deeper roots of the current imbalances, which have to do with the orientation, purpose, meaning and social context of technological and economic growth.

110. The specialization due to technology implies considerable difficulty in having an overview. The fragmentation of knowledge performs its task in time to obtain concrete applications, but often leads

one to lose the sense of wholeness, of the relations that exist between things, the broad horizon, meaning that becomes irrelevant. This same fact prevents one from identifying appropriate ways of solving the most complex problems of today's world, especially those of the environment and the poor, who cannot be addressed from a single point of view or from one type of interest. A science that claims to offer solutions to the big issues, should necessarily take account of all that knowledge produced in other areas of knowledge, including philosophy and social ethics. But this is a way of acting tough to carry on today. So you may not even recognize the true horizons of ethical reference. Life becomes a surrender to circumstances influenced by technology, seen as the main resource for interpreting existence. In the concrete reality that challenges us, different symptoms appear showing the error, such as environmental degradation, anxiety, loss of sense of life and of living together. This demonstrates once again that "the reality is superior to the idea." [91 Apost. ap. Evangelii gaudium (24 November 2013), 231: AAS 105 (2013), 1114.]

111. Ecological culture cannot be reduced to a series of urgent and partial answers to the problems that arise with respect to environmental degradation, depletion of natural reserves and pollution. It should be a different look, a thought, a policy, an educational program, a lifestyle and a spirituality that give shape to a resistance against the advance of the technocratic paradigm. Otherwise, even the

best ecological efforts may end up locked in the same globalized logic. To search only for a technical remedy for any environmental problem that is presented, purports it as an isolated thing that is in fact connected, hiding the true and most profound problems of the global system.

112. One can, however, extend one's gaze again, and human freedom is capable of limiting technology, to direct it, and put it at the service of another kind of progress, healthier, more humane, more social and more integral. Liberation from the prevailing technocratic paradigm in fact happens in some occasions. For example, when the community of small producers opts for cleaner production systems, supporting a way of life, of happiness and of conviviality not consumerism. Or when technology is geared primarily to solve the concrete problems of others, with a commitment to help them live with more dignity and less suffering. And even when the creative search of beauty and its contemplation are able to overcome the objectifying power in a kind of salvation that takes place in beauty and the person who contemplates it. The authentic humanity, which calls for a new synthesis, seems to live in the midst of technological civilization, almost imperceptibly, like fog seeping under a closed door. It will be a permanent promise, despite everything, that blossoms as stubborn resistance for what is authentic?

113. On the other hand, people no longer seems to believe in a happy future, do not trust blindly in a better tomorrow starting from the current state of

the world and technological capacity. One becomes aware that the progress of science and technology is not equivalent to the progress of humanity and history, and sees that other roads are essential to a happy future. Nevertheless, neither does one imagine giving up the possibilities offered by technology. Humanity has changed profoundly and the accumulation of novelties consecrates a transience that draws us to the surface in one direction. It becomes difficult to stop to recover the depth of life. If the architecture reflects the spirit of an era, the mega-structures and tract houses express the spirit of globalized technology, where the permanent newness of products merges with a heavy ennui. Not resign ourselves to this and not give up on us questions about the meaning and purpose of all things. Otherwise, only we legitimize the status quo and we will need more surrogates to tolerate the void.

114. What is happening makes us face the urgent need to proceed in a courageous cultural revolution. Science and technology are not neutral, but may involve beginning at the end of a process different intentions and possibilities, and can be configured in various ways. Nobody wants to go back to the cave, but it is essential to slow the march to see reality in another way, collect the positive and sustainable developments, and at the same time recover the values and great purposes destroyed by a megalomaniac licentiousness.

III. CRISIS AND CONSEQUENCES OF MODERN ANTHROPOCENTRISM

115. Modern anthropocentrism, paradoxically, ended up placing the technical reason above the reality, because the human being "no longer feels the nature neither as valid norm nor as living shelter. He sees without assumptions, objectively, as space and matter in which to create a work in which to throw everything, and no matter what it will be." [92 Romano Guardini, *Das Ende der Neuzeit*, 63 (ed. Trans. : *The End of the Modern*, 57-58).] In this way, it diminishes the intrinsic value of the world. But if the human being does not rediscover his true place, he does not include adequately himself and ends up contradicting his own reality. "Not only the land was given by God to man, who must use it with respect for the original good purpose, according to which it was given; but the man has given himself to God and must therefore respect the natural and moral structure, which has been endowed." [93 John Paul II, *Enc. Lett. Centesimus Annus* (May 1, 1991), 38: AAS 83 (1991), 841.]

116. In modern times there has been a considerable anthropocentric excess that, in another capacity, today continues to undermine any reference to something common and any attempt to strengthen social ties. So it is time to pay attention to reality again with the limits it sets, which in turn constitute the possibility of more healthy and fruitful human and social development. An inadequate presentation of Christian anthropology has come to promote a misconception of the relationship between human beings and the world. Many times was aired a Promethean dream of dominating the world that

caused the impression that the care of nature is something for the weak. Instead the correct interpretation of the concept of the human being as the lord of the universe is to understand him as a responsible administrator. [94 See Statement Love for Creation. An Asian Response to the Ecological Crisis, Interview promoted by the Federation of Asian Bishops' Conferences (Tagaytay, 31 January to 5 February 1993), 3.3.2.]

117. The lack of concern for measuring the damage to nature and the environmental impact of decisions, is only the reflection of an evident lack of interest in acknowledging the message that nature carries inscribed in its own structure. When you do not recognize the reality itself of the importance of a poor person, of a human embryo, a person with disabilities - to name but a few - hardly you will hear the cries of nature itself. Everything is connected. If the human being is declared independent from reality and absolute ruler, the very basis of its existence crumbles, because "Instead of carrying out his role as a cooperator with God in the work of creation, man replaces God and thus ends up provoking a rebellion of nature." [95 John Paul II, Enc. Lett. Centesimus Annus (May 1, 1991), 37: AAS 83 (1991), 840.]

118. This situation leads us to a permanent schizophrenia, ranging from technocratic exaltation that does not recognize in other beings their own value, up to the reaction to deny any special value to the human being. But one can not prescind humanity. There will not be a new relationship with nature without a new human being. There is no

adequate ecological anthropology. When the human person is only considered to be one among others, who results from a game of chance or by a physical determinism, "you run the risk that the attenuation in people an awareness of responsibility." [96 Benedict XVI, Message for the World Day of Peace 2010, 2: AAS 102 (2010), 41.] A deviated anthropocentrism does not have to give way to a "bio-centrism" because that would imply introducing a new imbalance, which not only will not solve the problems, but will add another. It cannot be required on the part of the human commitment to the world, if you do not recognize and do not enhance at the same time our peculiar capacity for knowledge, desire, freedom and responsibility.

119. The criticism of deviated anthropocentrism should also be placed in the background of the value of relationships between people. If the ecological crisis is an emergence or an external manifestation of the ethical crisis, spiritual and cultural modernity, we cannot pretend to heal our relationship with nature and the environment without restoring all fundamental human relations. When Christian thought claims for the human being a unique value on top of the other creatures, it gives space to the development of every human person, and thus stimulates the recognition of the other. The opening to a "you" who can know, love and dialogue continues to be the nobility of the human person. Therefore, in order to ensure an adequate relationship with creation, there is no need to downplay the social dimension of the human being and even its transcendent dimension, its openness

to the "You" of God. In fact, one cannot propose a relationship with the environment ignoring that with other people and with God. It would be a romantic individualism disguised as ecological beauty and a suffocating self-seclusion in immanence.

120. Since everything is related, neither is justification of abortion compatible with the defense of nature. It does not appear viable an educative path for the reception of weak beings that surround us, that are sometimes troublesome or importunate, when you do not give protection to human embryos although his arrival is due to hardships and difficulties: "If you lose the personal and social sensitivity towards the acceptance of a new life, then other forms of acceptance that are valuable for society also wither away." [[97 Id., Lett. Enc. Caritas in Veritate (29 June 2009), 28: AAS 101 (2009), 663.]

121. The development of a new synthesis that overcomes the false dialectic of the last centuries is still waiting. Christianity itself, remaining faithful to its identity and treasure of truth which he received from Jesus Christ, always thinks back to express again in dialogue with the new historical situations, letting bloom its perennial newness. [98 See Vincent of Lérins, *Commonitorium primum*, chap. 23: PL 50, 668: "Ut annis scilicet consolidetur, dilatetur tempore, sublimetur Aetate."]

The practical relativism

122. A deviated anthropocentrism results in a

deviated lifestyle. In the Apostolic Exhortation *Evangelii gaudium* I referred to the practical relativism that characterizes our era, and that is "even more dangerous than doctrinal." [99 N. 80: AAS 105 (2013), 1053.] When the human being puts himself in the center, he ends up giving top priority to his contingent interests, and all the rest becomes relative. So it should not surprise that, together with omnipresence of the technocratic paradigm and the adoration of human power without limits, this relativism develops in people, in which everything becomes irrelevant if it serves their immediate interests. There is in this logic that allows us to understand how to nurture simultaneously different attitudes that cause at the same time environmental degradation and social degradation.

123. The culture of relativism is the same disease that drives a person to take advantage of another and to treat him as a mere object, forcing him to forced labor, or reducing him to slavery due to a debt. It is the same logic that leads to sexually exploiting children, or abandoning the elderly who do not serve one's interests. It is also the internal logic of those who say: let the invisible forces of the market govern the economy, because their effects on society and nature are unavoidable damage. If there are no objective truths or stable principles, outside of meeting the aspirations and immediate needs, what limits trafficking in human beings, organized crime, drug trafficking, the trade in blood diamonds and endangered animal skins? Is it not the same relativist logic that justifies the purchase of organs from poor people in order to sell them or use them for testing, or the discarding of children

because they do not respond to the desire of their parents? It is the same logic as "disposable" that produces a lot of refuse only for the inordinate desire to consume more than what one really needs. So we cannot think that the political agendas or the force of the law will be enough to avoid the behaviors that affect the environment, because when it is the culture which is corrupt and no longer recognizes any objective truth or universally valid principles, laws are seen just as arbitrary impositions and obstacles to avoid.

The need to defend labor

124. In any setting of integral ecology, which does not exclude the human being, it is essential to integrate the value of work, so expertly developed by St. John Paul II in his encyclical *Laborem exercens*. Recall that, according to the biblical account of creation, God placed the human being in the just created garden (cf. Gen 2:15), not just to take care of the existing (to guard), but to work there in order to produce fruit (to cultivate). So the workmen and artisans "ensure the eternal creation" (Sir 38,34). In reality, human intervention that promotes the prudent development of creation is the most appropriate way to take care, because it involves providing an instrument of God to help bring out the potential that he himself has inscribed in things, "The Lord has created medicines from the earth, the sensible man will not despise them" (Sir 38,4).

125. If we try to think about what the appropriate relationship is between the human being and the world around him, a need emerges for a correct conception of labor, because if we talk about the relationship between human beings and things, there is the question about the meaning and purpose of human reality. We do not speak only of manual labor or work on the land, but any activity that involves some transformation of existence, from the development of a social study to the design of a technological development. Any form of work requires an idea about the relationship that man can or must establish with the other self. Christian spirituality, along with contemplative wonder for creatures that we find in St. Francis of Assisi, has also developed a rich and healthy understanding of labor, as we can find, for example, in the life of Blessed Charles de Foucauld and his disciples.

126. We also collect something from the long monastic tradition. At first it favored a certain way to escape from the world, trying to get away from urban decay. For this, the monks sought the desert, convinced that it was the right place to recognize the presence of God. Then, St. Benedict wanted his monks to live in community, combining prayer and study with manual work (*Ora et labora*). This introduction of manual work steeped in the spiritual sense proved revolutionary. One learned to look for the maturation and sanctification interweaving between recollection and work. In this manner of living work makes us more able to care and respect for the environment, impregnates our relationship

with the world with healthy sobriety.

127. We affirm that "man is the source, the focus and the aim of all economic and social life." [100 Conc. Vatican Ecumenical Council. Vat. II, Const. Past. *Gaudium et Spes* on the Church in the Modern World, 63.] Nevertheless, in the human being when you lose the ability to contemplate and respect, it creates the conditions so that the meaning of work is distorted. [101 Cf. John Paul II, Lett. enc. *Centesimus Annus* (May 1, 1991), 37: AAS 83 (1991), 840.] It should always remember that the human being is at the same time "capable of becoming an actor himself responsible for his material improvement of his moral progress, the full arc of his spiritual destiny. " [102 Paul VI, Enc. Lett. *Populorum Progressio* (26 March 1967), 34: AAS 59 (1967), 274.] Labor should be the scope of this multifaceted personal development, where we bring into play many dimensions of life: creativity, projecting into the future, development of capabilities, the pursuit of values, communication with others, an attitude of adoration. Therefore, the social reality of today's world, beyond the narrow interests of business and a questionable economic rationality, demands that "we continue to prioritize the goal of access to work [...] for all." [103 Benedict XVI, Encyclical Letter. *Caritas in Veritate* (29 June 2009), 32: AAS 101 (2009), 666.]

128. We are called to work since our creation. You should not try to replace more and more human labor with technological progress: doing so would

damage humanity itself. Work is a necessity, is the meaning of life on this earth, maturation, human development and fulfillment. In this way, helping the poor with money should always be a temporary remedy to cope with emergencies. The real goal should always be to allow them a dignified life through work. However, the orientation of the economy has encouraged a kind of technological progress aimed at reducing production costs due to the decrease in jobs, which are being replaced by machines. It is another way in which the action of the human being can turn against itself. The reduction in jobs "also has a negative impact on the economic level, through the progressive erosion of 'social capital': the network of relationships of trust, reliability and respect of the rules, which are essential to any civil coexistence". [104 Ibid.] In short, "the human costs always include economic costs, and economic dysfunctions always involve human costs." [105 Ibid.] To give up investing in people to get more immediate profit is a bad deal for society.

129. In order to continue to be possible to offer employment, it is essential to promote an economy that encourages product diversification and entrepreneurial creativity. For example, there is a wide variety of agricultural and food systems of small scale that continues to feed most of the world population, using a small portion of the land and water and producing less waste, either in small agricultural plots and gardens, or in hunting and collection of forest products, or in the artisanal

fisheries. The economies of scale, especially in the agricultural sector, end up forcing small farmers to sell their land or to abandon their traditional crops. The attempts of some of them to develop other forms of more diversified production are useless because of the difficulty of access to regional and global markets or because the sales infrastructure and transport is at the service of big business. The authorities have the right and responsibility to take measures to clearly and firmly support small producers and diversification of production. For there to be an economic freedom in which all actually benefit, sometimes it may be necessary to put limits to those who hold the greatest resources and financial power. The announcement of economic freedom is simple, but when the actual conditions that prevent many can access it in reality, and when you reduce access to employment, it becomes a contradictory phrase that dishonors policy. Entrepreneurial activity, which is a noble vocation oriented to create wealth and improve the world for everyone, can be a very fruitful to promote the region where it places its activities, especially if that includes the creation of jobs, is an essential part of one's service to the common good.

Innovation from biological research

130. In the philosophical and theological vision of the human being and creation, which I tried to suggest, it is clear that the human person, with the peculiarity of his reason and of his science, is not an external factor that should be removed completely.

However, while the human being can intervene in the world of plants and animals and use them when necessary to his life, the Catechism teaches that animal testing is legitimate only if it "remains within reasonable limits and contributes to caring for or saving human lives" . [106 Catechism of the Catholic Church, 2417.] Remember firmly that human power has limits and that "it is contrary to human dignity to cause animals to suffer needlessly and have indiscriminately of their lives." [107 Ibid., 2418.] Any such use and experimentation "requires a religious respect for the integrity of creation." [108 Ibid., 2415.]

131. I want to acknowledge here the balanced position of St. John Paul II, who emphasized the benefits of scientific and technological advances, which "demonstrate the nobility of the human vocation to participate responsibly in the creative action of God" but at the same time remembered "interfering in one area of the ecosystem can not be separated from considering its consequences in other areas." [109 Message for the World Day of Peace 1990, 6: AAS 82 (1990), 150.] He proclaimed that the Church appreciates the contribution "of the study and applications of molecular biology, supplemented by other disciplines such as genetics and its technological application in agriculture and industry." [110 Address to the Pontifical Academy of Sciences (October 3, 1981), 3: L'Osservatore 4/2 (1981), 333.] Although he said also that this must not lead to an "indiscriminate genetic manipulation" [111 Message for the World Day of Peace 1990, 7:

AAS 82 (1990), 151.] ignoring the negative effects of these interventions. You can not curb human creativity. If you can not forbid an artist to express his creative ability, you can neither hinder those who possess special gifts for the development of science and technology, whose capabilities have been given by God for the service of others. At the same time, one can not help but reconsider the objectives, the effects, the context and the ethical limits of the human activity that is a form of power with great risks.

132. In this context should be located any reflection about the human intervention on the plant and animal world, which today involves genetic mutations produced by biotechnology in order to tap the opportunities present in the material reality. Respect for faith towards reason demands paying attention to what the same biological science, developed independently over economic interests, can teach about the biological structures and their possibilities and mutations. In any case, it is legitimate intervention that affects the nature "to help it develop according to its essence, that of creation, that willed by God." [112 John Paul II, Address to the thirty-fifth General Assembly of the World Medical Association (29 October 1983), 6: AAS 76 (1984), 394.]

133. It is difficult to give an overall judgment on the development of genetically modified organisms (GMO), plant or animal, for medical purposes or in agriculture, since they can be very different and

require different considerations. Instead, the risks are not always attributed to the same technique, but its inadequate or excessive application. In fact, genetic mutations have happened many times and are produced by nature itself. Even those caused by humans are not a modern phenomenon. The domestication of animals, the crossing of species and other universally accepted traditional practice can fit into these considerations. It should be remembered that the beginning of scientific developments on transgenic cereals has been the observation of bacteria that naturally and spontaneously produced a change in the genome of a plant. However in nature these processes have a slow pace, which is not comparable to the speed set by current technological advances, even when such advances are based on a scientific development of centuries.

134. Although we have no definitive evidence about the damage that transgenic grains could cause to humans, and in some regions, their use has produced economic growth that has helped solve some problems, there are significant problems that should not be minimized. In many areas, following the introduction of these crops, there has been a concentration of productive land in the hands of a few, due to the "gradual disappearance of small producers, who, in consequence of the loss of cultivated land, have been forced to retreat from direct production." [113 Episcopal Commission for Social Pastoral of Argentina, *A tierra para todos* (June 2005), 19.] The most vulnerable among them become temporary workers and many farm workers migrate end up in miserable urban settlements. The

spread of these crops destroys the complex web of ecosystems, decreases diversity in production and affects the present or the future of regional economies. In several countries there is a trend in the development of oligopolies in the production of seeds and other products needed for cultivation, and the dependence deepens when you consider the production of sterile seeds, which would end up forcing farmers to buy from producers.

135. No doubt there is need of constant attention, which leads to consider all ethical aspects involved. To this end it is necessary to ensure a scientific and social debate that is responsible and large, able to consider all the information available and to call things by their name. Sometimes one do not put on the table the full information, but it is selected according to one's interests, be they political, economic or ideological. This makes it difficult to develop a balanced and prudent judgment on the various issues, taking into account all the variables involved. We must have places of debate in which all those who somehow could be directly or indirectly involved (farmers, consumers, authorities, scientists, seed producers, people close to the treated field and others) set out their problems with access to extensive and reliable information to make decisions oriented to the common present and future good. The issue of GMOs is one that is complex, that must be approached with a sympathetic look in all its aspects, and this would require at least one more effort to finance several lines of independent and interdisciplinary research

that they can bring new light.

136. On the other hand, it is worrying that some environmental movements defend the integrity of the environment, and with reason reclaim limits to scientific research, and sometimes do not apply these same principles to the human life. Often it justifies that go beyond all limits when experimenting with human embryos alive. It forgets that the inalienable value of a human being goes far beyond the degree of its development. Equally, when technology does not recognize the great ethical principles, it ends up considering any practice legitimate. As we have seen in this chapter, technology separated from ethics is unlikely to be able to self-limit its own power.

CHAPTER FOUR

INTEGRAL ECOLOGY

137. Since everything is intimately related and since the current problems require a look that takes into account all aspects of the global crisis, I propose to pause now to reflect on the different elements of an integral ecology, that clearly comprises human and social dimensions.

I. ENVIRONMENTAL, ECONOMIC AND SOCIAL ECOLOGY

138. Ecology studies the relationships between living organisms and the environment in which they develop. It also demands stopping and thinking and discussing the conditions of life and survival of a society, with honesty to question patterns of development, production and consumption. It is not superfluous to insist further on the fact that everything is connected. Time and space are not independent of each other, nor can atoms or subatomic particles be considered separately. How the different components of the planet - physical, chemical and biological - are related to each other, so also living species form a network that we will never complete recognizing and understanding. Much of our genetic information is shared with many living things. For this reason, fragmented and isolated knowledge can become a form of ignorance if one resists integrating it into a broader vision of reality.

139. When we speak of the "environment" we also refer to a particular relationship: that between nature and the society that inhabits it. This prevents us from considering nature as something separate from us or as a mere frame of our lives. We are included in it, we are

part of it and we are imbued with it. The reasons for which a site is polluted require an analysis of the functioning of society, its economy, its behavior, its ways of understanding reality. Given the magnitude of the changes, you can not find a specific answer and independently for each individual part of the problem. It is essential to look for comprehensive solutions, which consider the interaction of natural systems with each other and with social systems. There are not two separate crises, an environmental and social one, but a single and complex socio-environmental crisis. The guidelines for the solution require a comprehensive approach to fight poverty, to restore dignity to the excluded and at the same time to take care of nature.

140. Because of the amount and variety of elements to be taken into account when determining the environmental impact of a concrete business activity it becomes imperative to give researchers a prominent role and facilitate their interaction with broad academic freedom. This ongoing research should help to recognize how different creatures are related, forming the larger units we now call "ecosystems". We do not take them into account only in determining what their reasonable use, but because they have an intrinsic value independent of such use. As every body is good and admirable in itself for being a creature of God, the same happens with the harmonized set of organisms in a given space, which functions as a system. Even if we do not have awareness, we depend on this system for our very existence. Take the ecosystems involved in the sequestration of carbon dioxide, in water purification, in managing diseases and pests, the composition of the soil, in the decomposition of waste and many other services that we forget or ignore. When you realize this, many people take

renewed awareness of the fact that we live and act from a reality that has been previously given, that is prior to our abilities and our existence. Therefore, when we speak of "sustainable use" we must always introduce a consideration of the regenerative capacity of each ecosystem in its various sectors and aspects.

141. On the other hand, economic growth tends to produce automatism and to homogenize, in order to simplify processes and reduce costs. This requires economic ecology, capable of inducing to consider the reality in a broader way. Indeed, "environmental protection must be an integral part of the development process and can not be considered in isolation." [114 Rio Declaration on Environment and Development (14 June 1992), Principle 4.] But at the same time become the current urgent need of humanism, which appeals to different types of knowledge, even economically, for a more complete and integral. Today the analysis of environmental problems is inseparable from the analysis of individual, family, labor, urban contexts and the relationship of each person with himself, that creates a certain way of relating with others and with the environment. There is an interaction between ecosystems and between different worlds of social reference, and so it proves once again that "the whole is greater than the part." [115 Apostolic. ap. Evangelii gaudium (24 November 2013), 237: AAS 105 (2013), 1116]

142. If everything is related, even the health of the institutions of a society has consequences for the environment and for the quality of human life: "Every violation of solidarity and civic friendship harms the environment." [116 Benedict XVI, Enc. Lett. Caritas in

Veritate (29 June 2009), 51: AAS 101 (2009), 687.] In this sense, social ecology is necessarily institutional and reaches progressively diverse sizes ranging from primary social group, the family, to the international life, going from the local community and the nation. Within each social level and between them, they develop the institutions that regulate human relationships. Anything that damages them has harmful effects, such as loss of freedom, injustice and violence. Several countries are governed by a precarious institutional system, at the cost of the suffering of the people and for the benefit of those who profit from this state of affairs. Both within the administration of the State, as in the different expressions of civil society, or in the relations of the inhabitants among them, there are too frequently illegal behavior. Laws can be written in the correct form, but often remain as a dead letter. Can we therefore hope that the legislation and regulations related to the environment are really effective? We know, for example, that countries with clear legislation for the protection of forests, continue to remain silent witnesses of its frequent violation. Also, what happens in one region, directly or indirectly, influence on other regions. So for example, the consumption of drugs in affluent societies causes a constant or increasing demand for products that come from impoverished regions, where it corrupts behavior, destroys lives and ends up degrading the environment.

II. CULTURAL ECOLOGY

143. Along with the natural heritage, there is a historical, artistic and cultural heritage, equally threatened. It is part of the common identity of a place and the basis for building a livable city. Do not destroy and create new,

hypothetically greener cities, where it is not always desirable to live. We must integrate the history, culture and architecture of a given place, safeguarding its original identity. So ecology also requires care of the cultural riches of humanity in their broadest sense. More directly, one should pay attention to local cultures when analyzing issues related to the environment, facilitating the dialogue between scientific-technical jargon and popular language. It is culture, not only understood as the monuments of the past, but especially in its alive, dynamic and participatory sense which can not be excluded when one rethinks the relationship between human beings and the environment.

144. The consumerist view of the human being, favored by the gears of the current globalized economy, tends to homogenize cultures and weaken the immense cultural diversity, which is a treasure of humanity. Therefore, to expect to solve all the problems with uniform standards or technical interventions, is to lead to neglecting the complexity of local issues, which require the active participation of the inhabitants. New jobs in gestation cannot always be integrated within established patterns from the outside but from within the same culture. As well as life and the world are dynamic, the care of the world must be flexible and dynamic. Purely technical solutions run the risk of addressing symptoms that do not correspond to the deeper problems. You need to take the perspective of the rights of peoples and cultures, and thus understand that the development of a social group supposes a historical process within a cultural context and requires constant eagerness of local social actors from their own culture. Even the notion of quality of life

can be imposed, but must be understood in the world of symbols and customs belonging to each human group.

145. Many forms of intensive exploitation and environmental degradation can deplete not only local livelihoods, but also the social resources that enabled a way of life that has long claimed a cultural identity and a sense of existence and of living together. The disappearance of a culture can be as serious as or more than the death of an animal or plant species. The imposition of a hegemonic style of life tied to a mode of production can be as harmful as the alteration of ecosystems.

146. In this sense, it is essential to pay special attention to Aboriginal communities with their cultural traditions. They are not a simple minority among others, but rather should be the main stakeholders, especially when we proceed with major projects that affect their areas. For them, in fact, the earth is not a commodity but a gift from God and ancestors who rest in it, a sacred space in which they need to interact to fuel their identity and their values. They who remain in their territories, are the ones that best care for them. However, in various parts of the world they are under pressure to abandon their lands and leave open for mining, agricultural or farming projects that do not pay attention to the degradation of nature and culture.

III. ECOLOGY OF EVERYDAY LIFE

147. In order to speak of authentic development, it needs to be checked that it produces an improvement in the

integral quality of human life, and this involves analyzing the space in which it takes place the existence of the people. The environments in which we live affect our outlook on life, our way of feeling and being. At the same time, in our room, in our home, in our workplace and in our neighborhood we use the environment to express our identity. We strive to adapt to the environment, and when it is messy, chaotic and full of visual pollution and noise, excessive stimuli challenge our attempts to develop an integrated and happy identity.

148. It is admirable, the creativity and generosity of people and groups who are able to overturn the limits of the environment, changing the adverse effects of conditioning, and learning to orient their lives in the midst of disorder and insecurity. For example, in some places, where the facades of the buildings are very deteriorated, there are people who treat with dignity the inside of their homes, or feel comfortable in the warmth and friendship of the people. The positive and beneficial social life of inhabitants spreads light in a room that is at first glance uninhabitable. The human ecology that the poor sometimes can develop in the midst of so many limitations is praiseworthy. The feeling of suffocation produced by conurbations and residential spaces with high population density, is counteracted if you develop human relations of closeness and warmth, if you create communities, if environmental constraints are offset in the interior of each person who feels included in a network of community and belonging. Thus, any such place stops being hell and becomes the setting of a dignified life.

149. It is also proved that the extreme scarcity in which one lives in certain environments without harmony, breadth and possibilities for integration, facilitates the emergence of inhuman behavior and the manipulation of people by criminal organizations. For the inhabitants of very precarious suburbs, the daily experience of passing through crowds in social anonymity that one lives in large cities, can cause a feeling of rootlessness that promotes anti-social behavior and violence. However I would like to reiterate that love is stronger. So many people, in these conditions, they are able to establish bonds of belonging and living together that transform the crowding in a community experience where you break the walls of the ego and overcome barriers of selfishness. This experience of communitarian salvation is what often elicits creative reactions to improve a building or a neighborhood. [117 Some authors have shown the values that often exist, for example, in villas, chabolas or favelas of Latin America: Juan Carlos cf. Scannone, SJ, "The irrupción pobre y of the logic of the Gratitude" en Juan Carlos Scannone y Marcelo Perine (edd.), *Irrupción del pobre y quehacer philosophical. Hacia una nueva racionalidad*, Buenos Aires 1993, 225-230.]

150. Given the interrelationship between urban spaces and human behavior, those who design buildings, neighborhoods, public spaces and cities, need the contribution of different disciplines that make it possible to understand the processes, the symbolism and the behavior of people. Not just the pursuit of beauty in the project, because it has even more value serving another kind of beauty: the quality of life of people, their

harmony with the environment, the encounter and mutual aid. This is also why it is so important that the views of local people contribute more to the analysis of urban planning.

151. It is necessary to look after the public spaces, the paintings and prospective urban landmarks that enhance our sense belonging, the feeling of our roots, our "feeling at home" in the city that contains us and unites us. It is important that the different parts of a city are well integrated and that the people can have an overall view rather than retreat into a neighborhood, giving up living in the whole city as its own space shared with others. Any intervention in urban or rural landscape should consider how the different elements of the site form a whole that is perceived by the people as a framework consistent with its wealth of meanings. Thus others cease to be strangers and they can be perceived as part of a "we" that we build together. For this same reason, both in the urban and in the rural setting, we should preserve some spaces in which we avoid human intervention that will continuously modify them.

152. The housing shortage is severe in many parts of the world, both in rural areas and in big cities, because state budgets typically cover only a small part of the demand. Not only the poor, but a large part of society encounters serious difficulties in having a home. Home ownership has great importance for the dignity of persons and for the development of families. This is a central question of human ecology. If in a particular place chaotic shanty towns have already developed, it is of primary concern to urbanize these areas, not to eradicate and expel its

inhabitants. When poor people live in polluted suburbs or dangerous conurbations, "if we should proceed to the transfer and not to heap suffering upon suffering, you must provide an adequate and having informed, offer choices of decent housing and the people directly involved". [118 Pontifical Council for Justice and Peace, Compendium of the Social Doctrine of the Church, 482.] At the same time, creativity should lead to integrating disadvantaged neighborhoods within a welcoming city. "How beautiful are the cities that exceed unhealthy mistrust and integrate the different and that make this integration a new factor in the development! How beautiful the city, also in its architectural design, is full of spaces that connect, relate, promote the recognition of the other." [119 Apostolic. ap. *Evangelii gaudium* (24 November 2013), 210: AAS 105 (2013), 1107.]

153. The quality of life in cities is due in large part to transport, which are often the cause of great suffering for the people. Many cars circulating in the city are used by one or two people, so the traffic gets heavy, raising the level of pollution, consuming huge amounts of non-renewable energy, and it becomes necessary to build more roads and parking lots, which damage the urban fabric. Many experts agree on the need to give priority to public transport. However some necessary measures are unlikely to be accepted peacefully by society without a substantial improvement of these operations, which in many cities involves an unworthy treatment of the people because of crowding, the inconvenience or low frequency and insecurity of services.

154. The recognition of the unique dignity of the human

being often contrasts with the chaotic life that people in our cities must lead . But this should not make us forget the state of abandonment and neglect that some residents of rural areas also suffer from, where there's no essential services, and workers are reduced to slavery, with no rights or expectations of a more dignified life.

155. Human ecology also implies something very profound: the necessary relationship of human life with the moral law inscribed in its own nature, an essential relationship for creating a more dignified environment. Benedict XVI affirmed that there is a "ecology of man" because "the man has a nature that he must respect and that he can not manipulate at will." [120 Address to the Deutscher Bundestag, Berlin (September 22, 2011): AAS 103 (2011), 668.] In this line, we must recognize that our body puts us in a direct relationship with the environment and with other living beings. The acceptance of one's body as a gift of God is necessary to accommodate and accept the world as a gift of the Father and common home; instead a logic of domination over his own body it becomes a logic of sometimes subtle dominion over creation. Learning to accept your body, to care and to respect its messages is essential for a true human ecology. Also appreciating your own body in its masculinity or femininity is necessary to being able to recognize oneself in the encounter with the other than itself. In this way you can accept with joy the specific gift of one or the other, the work of God the Creator, and enrich each other. Therefore, it is not a healthy attitude that claims to "delete the sexual difference because he can not deal with it." [121 Catechesis (15 April 2015): L'Osservatore Romano, April 16, 2015, p. 8.]

IV. THE PRINCIPLE OF THE COMMON GOOD

156. Human ecology is inseparable from the notion of the common good, a principle that is central and unifying to social ethics. It is "the sum total of social conditions which allow both groups as well as individuals, to reach their fulfillment more fully and more easily". [122 Conc. Vatican Ecumenical Council. Vat. II, Const. Past. *Gaudium et Spes* on the Church in the Modern World, 26.]

157. The common good presupposes respect for the human person as such, with fundamental and inalienable rights ordered for his overall development. It also requires the devices of welfare and social security and the development of various intermediary groups, applying the principle of subsidiarity. Among them stands out especially the family as the basic unit of society. Finally, the common good requires the social peace, namely the stability and security of a certain order, which can not be achieved without special attention to distributive justice, the violation of which always generates violence. The whole society - and in it especially the state - has an obligation to defend and promote the common good.

158. In the present conditions of the world society, where you encounter many inequities and are an increasing number of people who are rejected, deprived of basic human rights, the principle of the common good is immediately transformed, as a logical and inevitable consequence, into an appeal to solidarity and a preferential option for the poor. This option requires you to draw the consequences of the common destination of earthly goods, but, as I tried to show in the Apostolic *Evangelii Gaudium*, [123 Cf. nn. 186-201: AAS 105

(2013), 1098-1105.] requires you to contemplate above all the immense dignity of the poor in the light of the most profound convictions of faith. Just look at the reality to understand that today this choice is a fundamental ethical need for the effective realization of the common good.

V. GENERATIONAL JUSTICE

159. The notion of common good also involves future generations. The international economic crisis crudely showed harmful effects that carry with them the denial of a common destiny, which can not be excluded from those who come after us. Now we can not talk about sustainable development without solidarity between generations. When we think of the situation when you leave the planet for future generations, we enter into another logic, that of the free gift we receive and pass on. If the land is given to us, we can no longer think only from a utilitarian criterion of efficiency and productivity for individual profit. We're not talking about an optional attitude, but a fundamental question of justice, since the earth we have received also belongs to those who come. The Bishops of Portugal urged to take on this duty of justice: "The environment is located in the logic of receiving. It is a loan that each generation has to receive and transmit to the next generation. "[124 Portuguese Episcopal Conference, Pastoral Letter Responsabilidade Solidária hair bem comum (15 September 2003), 20.]

An integral ecology has such a broad view.

160. What kind of world we want to pass on to those who come after us, to children who are growing up? This question is not just about the environment in isolation,

because you can not put the issue in a partial way. When we ask ourselves about the world we want to leave we are referring mainly to its general orientation, its sense, its values. If this basic question does not pulsate in them, I do not think that our ecological concerns can obtain important results. But if this question is asked with courage, it leads us inexorably to other very direct questions: For what purpose do we pass from this world? To which end we have come in this life? For what purpose do we work and struggle? Why does this earth need us? Therefore, it is no longer enough to say that we have to worry about future generations. It should be realized that what is at stake is the dignity of ourselves. We are the first interested parties to transmit a habitable planet for humanity to come after us. It is a drama for ourselves, because it calls into question the meaning of our passage on earth.

161. Catastrophic predictions now can no longer be looked at with contempt and irony. We could leave the next generations too many ruins, deserts and foulness. The rate of consumption, of waste, and environmental changes has exceeded the means of the planet, so that the current lifestyle, being unsustainable, may result only in disaster, as in fact is already happening periodically in different regions. The attenuation of the effects of the current imbalance depends on what we do now, especially if we think about the responsibility that we ascribe those who will have to bear the worst consequences.

162. The difficulty in taking the challenge seriously is related to an ethical and cultural deterioration accompanying the ecological one. Man and woman of the postmodern world are in danger of becoming

permanently, deeply individualistic, and many current social problems are considered in conjunction with the selfish pursuit of immediate gratification, with the crisis of the family and social ties, with difficulty recognizing the other. Many times we are faced with excessive consumption and myopic parents hurting children, who find it increasingly difficult to buy a home and start a family. Moreover, this inability to think seriously about future generations is linked to our inability to broaden the horizon of our concerns and think about how many remain excluded from development. And as we imagine the poor of the future, just remember that the poor of today, who have a few years to live on this earth and can not keep waiting. Therefore, "in addition to fair intergenerational solidarity, we must reiterate the urgent moral need for renewed solidarity between generations." [125 Benedict XVI, Message for the World Day of Peace 2010, 8: AAS 102 (2010), 45.]

CHAPTER FIVE

SOME GUIDELINES AND ACTION

163. I tried to examine the current situation of humanity, both in the corners of the planet we inhabit, as well in the more deeply human causes of environmental degradation. Although this contemplation of reality in itself already shows us the need for a change of course and suggests some actions, let us now outline the major paths of dialogue that will help us to escape the spiral of self-destruction into which we are sinking.

I. THE DIALOGUE ON THE ENVIRONMENT IN INTERNATIONAL POLITICS

164. Since the middle of last century, overcoming many difficulties, we have been affirming a tendency to conceive of the world as a fatherland and humanity as a people inhabiting a common home. An interdependent world means not only understanding that the harmful consequences of lifestyles, of production, and of consumption affect everyone, but, primarily, to ensure that solutions are proposals from a global perspective and not only in defense of the interests of some countries. Interdependence forces us to think of one world, a common project. But the same intelligence used for a huge technological development, cannot find effective forms of international governance in order to overcome the serious environmental and social problems. To address the underlying problems, which cannot be solved by actions of individual countries, it is essential that a global consensus will lead, for example, to planning sustainable and diversified agriculture, to developing renewable, nonpolluting forms of energy, to

encouraging greater energy efficiency, to promoting better management of forest resources and marine, to ensuring that everyone has access to clean water.

165. We know that the technology based on fossil fuels, highly polluting - especially coal, but also oil and, to a lesser extent, natural gas - must be replaced progressively and without delay. Pending a wide development of renewable energy, which should already be started, it is legitimate to opt for the lesser evil or to resort to temporary solutions. However, the international community does not reach appropriate agreements about the responsibility of those who have to bear the higher costs of energy transition. In recent decades, environmental issues have given rise to a broad public debate, which has grown into civil society spaces of considerable commitment and generous dedication. Politics and industry are slow to respond, far from being up to the global challenges. In this sense we can say that, while the humanity of the post-industrial period will probably be remembered as one of the most irresponsible in history, there is hope that the humanity of the early twenty-first century will be remembered for having assumed with generosity their grave responsibilities.

166. The ecological movement worldwide has already come a long way, enriched by the effort of many civil society organizations. It would be impossible to mention them all here, or to trace the history of their contributions. But thanks to a lot of effort, environmental issues have been increasingly present on the public agenda and have become a standing invitation to think in the long term. Nevertheless, the world summits on the environment in recent years have not

met expectations because, for lack of political decision, they did not achieve really significant and effective global environmental agreements.

167. The Earth Summit held in 1992 in Rio de Janeiro should be remembered. In that meeting, it was stated that "human beings are at the center of concerns for sustainable development." [126 Rio Declaration on Environment and Development (14 June 1992), Principle 1.] Taking some contents of the Stockholm Declaration (1972), it established, among other things, international cooperation for the care of the ecosystem of the whole earth, the obligation on the part of polluters to take responsibility economically, the duty to assess the environmental impact of each work or project. It proposed the objective of stabilizing greenhouse gas concentrations in the atmosphere to reverse the trend of global warming. It also prepared an agenda with a program of action and the Convention on Biological Diversity, and declared principles relating to forestry. Although the summit was truly innovative and prophetic for his time, the agreements have had a low level of implementation because they have not established adequate control mechanisms, periodic verification or sanctions for non-compliance. The principles continue to require agile and effective ways of practical realization.

168. Among the positive experiences can be mentioned, for example, the Basel Convention on hazardous waste, with a notification system, to set levels and controls; as well as the binding Convention on international trade in species of wild fauna and flora threatened with extinction, which provides verification missions of effective implementation. Thanks to the Vienna Convention for the protection of the ozone layer and its

implementation by the Montreal Protocol and its amendments, the problem of thinning of this layer seems to have entered a phase of solution.

169. With regard to care for biological diversity and desertification, progress has been much less significant. With regard to climate change, progress is woefully sketchy. The reduction of greenhouse gases requires honesty, courage and responsibility, especially by the most powerful countries and the most polluting. The United Nations Conference on Sustainable Development, known as Rio + 20 (Rio de Janeiro 2012), issued a broad but ineffective Final Declaration. International negotiations may not advance significantly because of the positions of the countries that favor their national interests over the global common good. How many will suffer the consequences that we try to cover up, remembering this lack of awareness and responsibility. As I was elaborating this encyclical, the debate has taken on a special intensity. We believe we can only pray to God for the positive developments of the current discussions, so that future generations do not suffer the consequences of imprudent delay.

170. Some of the strategies for low emission of polluting gases point to the internalization of environmental costs, with the danger of imposing on countries with less heavy commitments on emission reductions, similar to those of most industrialized countries. The imposition of these measures penalize countries in need of development. In this way it adds a new injustice under the cover of the care for the environment. Also in this case, it always rains on the soaked. Since the effects of climate change

will be felt for a long time, although now it would take strict measures, some countries with limited resources will need help to adapt to the effects that are already producing and affect their economies. It remains certain that there are common but differentiated responsibilities, simply because, as the bishops said in Bolivia, "the countries that have benefited from a high level of industrialization, at the cost of enormous greenhouse gas emissions, have greater responsibility contribute to solving the problems that have caused. "[127 Bolivian Episcopal Conference, Pastoral Letter on the environment and human development in Bolivia El Universo, Don de Dios para la Vida (2012), 86.]

171. The strategy for the sale of "carbon credits" can give rise to a new form of speculation and would not help to reduce the global emission of polluting gases. This system seems to be quick and easy, with the appearance of a certain commitment to the environment, but in no way implies a radical change to the occasion. Indeed, it may be a device that permits support for the super-consumption of some countries and sectors.

172. For poor countries the priority should be the eradication of poverty and social development of their inhabitants; at the same time they should consider the outrageous level of consumption of certain privileged sectors of their population and better counter corruption. Of course, also they need to develop less-polluting forms of energy production, but for this they need to count on the help of the countries that have grown at the expense of much current pollution of the planet. The direct exploitation of the abundant solar energy requires the establishment of mechanisms and

subsidies so that developing countries can have access to technology transfer, for technical assistance and financial resources, while always paying attention to the concrete conditions, since "it is not always properly assessed the compatibility of the systems with the context for which they are designed. "[128 Pontifical Council for Justice and Peace, Energy, Justice and Peace, IV, 1, Vatican City (2013), 56.] Costs would be low when compared to the risk of climate change. In any case, it is first of all an ethical choice, based on the solidarity of all peoples.

173. Urgent international agreements that will be realized, considering the limited capacity of local bodies to intervene effectively. Relations between States must safeguard the sovereignty of each, but also agree to establish paths to avoid local disasters that would end up hurting everyone. Global regulatory frameworks are needed imposing obligations and excluding unacceptable actions, such as the fact that powerful countries and highly polluting industries discharge waste into other countries.

174. We also mention the system of governance of the oceans. In fact, although there have been several international and regional conventions, the fragmentation and the lack of strict regulatory mechanisms, control and sanction end up undermining all efforts. The growing problem of marine refuse and the protection of marine areas beyond national borders continues to represent a special challenge. Ultimately, we need an agreement on the governance arrangements for the full range of so-called global commons.

175. The same logic that makes it difficult to take drastic action to reverse the trend of global warming is the one

that does not allow us to achieve the goal of eradicating poverty. We need a more responsible global reaction, which involves tackling simultaneously reduction of pollution and development of the countries and poor regions. The twenty-first century, while keeping its governance of past eras, is witnessing a loss of power of the United States, especially because the economic and financial dimension, with transnational character, tends to dominate policy. In this context, it becomes essential to the development of stronger and efficiently organized international institutions, with authorities designated in an impartial manner through agreements between national governments, and with the power to sanction. As Benedict XVI said in the line already developed by the social doctrine of the Church, "to manage the global economy; to revive economies hit by the crisis, to prevent deterioration of the present and the greater imbalances; to achieve integral and timely disarmament, food security and peace; to guarantee the protection of the environment and to regulate migration, there is urgent need of a true world political authority, which has already been outlined by my predecessor, [St.] John XXIII. "[129 Benedict XVI, Enc. Lett. Caritas in Veritate (29 June 2009), 67: AAS 101 (2009), 700. 177. 136] In this perspective, diplomacy acquires a new importance, in order to promote international strategies to prevent the most serious problems that end up affecting us all.

II. DIALOGUE ON NEW NATIONAL AND LOCAL POLICIES

176. Not only are there winners and losers among the countries, but also within poor countries, where one has to identify different responsibilities. Therefore, environmental issues and economic development can no longer be set only from the differences between the

countries, but demand paying attention to national and local policies.

177. Faced with the possibility of an irresponsible use of human capacities, they are functions of the imperative requirement of each state to plan, coordinate, monitor and punish within their territories. How does society order and maintain its development in a context of constant technological innovations? One factor that acts as the moderator is the actual law, laying down the rules for the conduct permitted in the light of the common good. The limits that must impose a healthy society, mature and sovereign are related to prediction and precaution, appropriate regulations, monitoring the application of rules, dealing with corruption, actions of operational control on the emergence of undesirable effects of production processes, and intervention appropriate in the face of uncertain risks or potential. There is a growing case law geared at reducing the polluting effects of the business activities. But the political and institutional structure does not exist only to avoid the bad practices, but to encourage good practice, to stimulate creativity that seeks new ways to facilitate personal and collective initiatives.

178. The predicament of a policy focused on immediate results, supported also by consumerist populations, is necessary to produce short-term growth. Responding to electoral interests, governments do not dare to easily irritate the population with measures that may affect the level of consumption or jeopardize foreign investment. The short-sighted construction of power constrains the insertion of a forward-looking environmental agenda within the public agenda of governments. We forget that "the time is greater than the space" [130 Apostolic. ap.

Evangelii gaudium (24 November 2013), 222: AAS 105 (2013), 1111], that we are more and more fruitful if we care to generate processes, rather than to dominate spaces of power. Political greatness shows itself when, in difficult times, it operates on the basis of great principles and thinking about the common good in the long term. Political power makes it hard to accept this duty in a project of the Nation.

179. In some places, they are developing cooperatives for the exploitation of renewable energy that enable local self-sufficiency and even the sale of excess production. This simple example shows that, while the existing world order shows itself powerless to assume responsibility, the local instance can make a difference. It is fact that there can arise a greater responsibility, a strong sense of community, a special ability to care and a more generous creativity, a deep love for their land, as well as thinking about what you leave for our children and grandchildren. These values have very deep roots in aboriginal populations. Since the law at times, proves inadequate because of corruption, it requires a political decision under the pressure of the population. Society, through non-governmental organizations and intermediary associations, must require governments to develop policies, procedures and stricter controls. If citizens do not control political power - national, regional and municipal - it is not possible to contain environmental damage. On the other hand, the municipal laws may be more effective if there are agreements between neighboring populations to support the same environmental policies.

180. One cannot think of uniform prescriptions, because there are issues and limitations specific to each country

and region. It is also true that political realism can involve transitional measures and technologies, provided they are accompanied by the design and gradual acceptance of binding commitments. At the same time, however, at national and local level there is always plenty to do, such as promoting energy saving systems. This implies facilitating industrial production modes with maximum energy efficiency and reduced use of raw materials, removing from the market products that not very effective from the point of view of energy or greater pollution. We can also mention good transportation management or technologies of construction and renovation of buildings that reduce energy consumption and pollution levels. In addition, local political action can orient itself to the change in consumption, the development from an economy of waste to recycling, the protection of certain species and the planning of diversified agriculture with crop rotation. One can help improve poor agricultural regions through investments in rural infrastructure, the organization of local or national markets, in irrigation systems, in the development of sustainable agricultural techniques. You can facilitate forms of cooperation or community organization that promote the interests of small producers and preserve local ecosystems from depredation. There is very much that one can do!

181. Continuity is essential, because you can not change the policies related to climate change and environmental protection every time a government changes. The results are time consuming and involve immediate costs with effects that cannot be produced during the life of a government. Therefore, without the pressure of

population and institutions, there will always be resistance to intervention, especially when there are urgent needs to solve. A politician that takes these responsibilities with the costs that imply, not responding to efficiency-oriented logic and "immediatist" economics and current politics, but if one has the courage to do so, will again recognize the dignity that God has given him as a person and leave, after his passage in history, a testimony of generous responsibility. It should give more space for a sound policy, able to reform the institutions, to coordinate and provide them with good practices, that can overcome pressures and vicious inertia. However, we must add that the best devices end up succumbing when missing the great goals, the values, a humanistic and meaningful understanding, capable of giving each society a noble and generous orientation.

III. DIALOGUE AND TRANSPARENCY IN DECISION-MAKING

182. The forecast of the environmental impact of business initiatives and projects requires political processes transparent and subjected to dialogue, while corruption that hides the true environmental impact of a project in exchange for favors often leads to ambiguous agreements beyond the duty to inform and in-depth debate.

183. A study of environmental impact should not be following the development of a productive project or any policy, plan or program. It should be added from the start and should be developed in an interdisciplinary way, transparent and independent of any political or

economic pressure. It must be connected with the analysis of working conditions and the possible effects on the physical and mental health of the people, the local economy, safety. It will be able to predict more realistically the economic results, taking into account the possible scenarios and possibly anticipating the need for greater investment to solve side effects that can be corrected. One always needs to gain consensus among the various social actors who can bring different perspectives, solutions and alternatives. But the debate must hold pride of place for the locals, who are wondering what they want for themselves and their children, and may take into account the purposes that go beyond the immediate economic interest. We must abandon the idea of environmental "interventions", to give rise to policies designed and debated by all parties concerned. Participation requires that everyone is well informed about the different aspects and the various risks and opportunities, and can not be reduced to the initial decision on a project, but also involves actions to control or monitoring. There is need for sincerity and truth in scientific discussions and policies, is not limited to considering what is allowed or not by legislation.

184. When any environmental risks are displayed that affect the common good of present and future, the situation requires "that decisions are based on a comparison of risks and benefits foreseen for the various possible alternatives," [131 Pontifical Council for Justice and Peace, Compendium of the Social Doctrine of the Church, 469.]. This is especially true if a project may cause an increase in the exploitation of natural resources, emissions and waste, production waste, or a

significant change in the landscape, the habitat of endangered species or in a public space. Some projects, not supported by a careful analysis, can profoundly affect the quality of life of a place for very different issues between them such as, for example, a noise is not expected, a reduction in visibility, the loss of cultural values, the effects of the use of nuclear energy. The consumer culture that gives priority to short-term and private interest, can promote practices that are too rapid or can allow the concealment of information.

185. In any discussion of a business venture you should ask a series of questions, in order to discern if it brings a real integral development: For what purpose? Why? Where? When? In what way? Who is it for? What are the risks? At what cost? Who pays and how will they? In this test there are issues that need to be prioritized. For example, we know that water is a scarce and essential resource, and also a fundamental right that affects the exercise of other human rights. This is unquestionable and beyond any environmental impact analysis of a region.

186. In the Rio Declaration of 1992, it is declared that "where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason to delay the adoption of effective measures" [132 Rio Declaration on Environment and Development (14 June 1992), Principle 15] that prevent the degradation of the environment. This precautionary principle allows the protection of the weak, who have few means to defend themselves and to provide irrefutable evidence. If the objective information leads us to foresee a serious and irreversible damage, even without an indisputable demonstration, any project

should be stopped or changed. This will reverse the burden of proof, given that these will need to provide an objective demonstration and decisive that the proposed activity is not going to bring serious harm to the environment or to those who inhabit it.

187. This does not mean opposing any technological innovation that allows to improve the quality of life of a population. But in any case it must remain firm that profitability can not be the only criterion to take into account, and that, when new elements of judgment appear with the development of information, there should be a re-evaluation with the participation of all stakeholders. The result of the discussion may be the decision not to pursue a project, but it could also be its modification or development of alternative proposals.

188. There are discussions on issues relating to the environment for which it is difficult to reach a consensus. Once again I repeat that the Church does not claim to settle the scientific questions, nor to present a substitute for policy, but calls for an honest and transparent debate, because special needs or ideologies must not adversely affect the common good.

IV. POLITICS AND ECONOMICS IN DIALOGUE FOR HUMAN FULLNESS

189. Policy does not have to submit to the economy, and should not submit to the dictates and the efficiency paradigm of technocracy. Today, thinking of the common good, we inescapably need that politics and the economy, in dialogue, place themselves resolutely to the service of life, especially human life. The bailout of the banks at all costs, by charging the price to the

population, without the firm decision to review and reform the entire system, reaffirms an absolute domination of finance that has no future and that can only generate new crises after a long, expensive and apparent cure. The financial crisis of 2007-2008 was an opportunity to develop a new economy more attentive to ethical principles, and to a new regulation of financial speculation and virtual wealth. But there has been a reaction that has led us to rethink the outdated criteria that continue to rule the world. Production is not always rational, and is often linked to economic variables which give the product a value that does not correspond to its real value. This causes often an overproduction of certain goods, with an unnecessary environmental impact, at the same time harming many regional economies. [133 See Mexican Episcopal Conference. Episcopal Commission for Social Pastoral, *Jesucristo, vida y esperanza de los indígenas y campesinos* (14 January 2008).] The financial bubble is usually also a bubble of production. Ultimately, what is not addressed decisively is the problem of the real economy, which makes it possible for one to diversify and improve production, which companies are working properly, that small and medium-sized enterprises to develop and create employment, and so on.

190. In this context, we must always remember that "environmental protection can not be assured solely on the basis of financial calculations of costs and benefits. The environment is one of those goods that market mechanisms are not able to defend or promote adequately. "[134 Pontifical Council for Justice and Peace, *Compendium of the Social Doctrine of the Church*, 470.] Again, we should avoid a magical concept of the market, which tends to think that the problems will be

resolved only by growth in corporate and individual profits. Is it unrealistic to expect that those who are obsessed with maximizing profits stop to think about the environmental effects that they will leave to future generations? Within the scheme of annuity there is no place to think about the rhythms of nature, in this time of degradation and regeneration, and the complexity of ecosystems that may be seriously altered by human intervention. Moreover, when it comes to biodiversity, at the most it is thought as a reserve of financial resources that could be exploited, but not considered seriously is the real value of things, their meaning for people and cultures, for the interests and needs of the poor.

191. When you raise these issues, some react by accusing you of irrationally demanding to stop progress and human development. But we must convince ourselves that slowing down to a certain pattern of production and consumption can lead to another mode of progress and development. Efforts for the sustainable use of natural resources are not an unnecessary expense, but an investment that will provide other economic benefits in the medium term. If we do not have constraints against different views, we find that the diversification of production, more innovative and with lower environmental impact, can be very profitable. It is to open the way for different opportunities, which do not imply stopping human creativity and its dream of progress, but rather channelling this energy in a new way.

192. For example, a process of more creative and better targeted productive development could correct the disparity between the excessive investment in technology for the consumer and the poor to solve the

urgent problems of mankind; it could generate intelligent and profitable forms of re-use, functional recovery and recycling; it could improve urban energy efficiency; and so on. Diversification of production offers very wide possibilities for human intelligence to create and innovate, while protecting the environment and creating more job opportunities. This creativity would let the nobility of the human being to flower again, because it is more dignified to use intelligence, with courage and responsibility, to find forms of sustainable and equitable development, as part of a broader concept of quality of life. Conversely, it is less dignified and creative and more superficial to insist on creating forms of looting of nature only to offer new possibilities for consumption and immediate returns.

193. However, if in some cases sustainable development will involve new ways to grow, in other cases, in front of the greedy and irresponsible growth that has taken place over many decades, we must think well about slowing down the pace a bit, putting in some reasonable limits and also turning back before it is too late. We know it is unsustainable behavior of those who consume and destroy more and more, while others fail to live in accordance with their human dignity. Because of this, it's time to accept a certain decrease in some parts of the world procuring resources so that we can grow in a healthy way elsewhere. Benedict XVI said that "it is necessary that technologically advanced societies must be prepared to encourage conduct characterized by sobriety, while reducing their energy consumption and improving the conditions of its use." [135 Message for the World Day of Peace 2010, 9: AAS 102 (2010), 46.]

194. In order that new models of progress arise we need

to "change the pattern of global development", [136 Ibid.] which implies reflecting responsibly "on the meaning of the economy and its purposes, to correct its dysfunctions and distortions". [137 Ibid., 5: p. 43.] It is not enough to reconcile, in a middle ground, caring for nature with the financial revenue, or the preservation of the environment with the progress. On this issue the middle ground is only a small delay in disaster. It is merely redefining progress. A technological and economic development that does not leave a better world and a higher quality of life in its entirety, can not be considered progress. On the other hand, many times the actual quality of life of people decreases - the deterioration of the environment, the low quality of the food or the depletion of some resources - in the context of a growing economy. In this framework, the discourse of sustainable growth often becomes a diversion and a means of justification absorbing values of the ecologist discourse within the logic of finance and technocracy, and the social and environmental responsibility of businesses is reduced mostly to a series of marketing and image.

195. The principle of profit maximization, which tends to isolate itself from any other consideration, is a conceptual distortion of the economy: it increases production, caring little what is produced at the expense of future resources or the health of the environment; if the cutting down of a forest increases production, no measure in this calculation includes the loss of desertifying a territory, destroying biodiversity or increasing pollution. Namely that companies obtain profits by calculating and paying a tiny fraction of the cost. One might consider behavior ethical only when "the economic and social costs resulting from the use of common environmental resources are recognized with

transparency and are fully supported by those who benefit from it and not by other peoples or future generations." [138 Benedict XVI, Enc. Lett. Caritas in Veritate (29 June 2009), 50: AAS 101 (2009), 686.] Instrumental rationality, which brings only a static analysis of reality according to the needs of the moment, is present both when the market allocates resources, as when does a state planner.

196. What then is the place of politics? We recall the principle of subsidiarity, which gives freedom for the development of the capacity that exists at all levels, but at the same time calls for more responsibility to the common good on the part of those who hold the most power. It is true that today some economic sectors exert more power of the states themselves. But you can not justify an economy without politics, that would be incapable of bringing about another logic capable of governing the various aspects of the current crisis. The logic that leaves no room for a genuine concern for the environment is the same that has no place concerning the integration of the more fragile, because "in the current model 'successful' and 'private', does not seem to make sense to invest those who are left behind, the weak or less gifted can make their way in life." [139 Apostolic. ap. Evangelii gaudium (24 November 2013), 209: AAS 105 (2013), 1107.]

197. We need a policy that thinks with a broad view, and carries forward a new integrated approach, including an interdisciplinary dialogue in the different aspects of the crisis. Many times the same policy is responsible for its own discredit, because of corruption and the lack of good public policy. If the state does not fulfill its role in a region, some business groups may appear as benefactors

and hold the real power, feeling permitted not to observe certain standards, giving rise to different forms of organized crime, human trafficking, drug trafficking and violence that is very difficult to eradicate. If politics is not capable of breaking a perverse logic, and is also incorporated in inconsistent speeches, it will continue to not address the major problems of humanity. A strategy of real change requires us to rethink the whole process -- it is not enough to insincerely consider superficial ecological considerations while no one questions the logic underlying the present culture. A sound policy should be able to take on this challenge.

198. The political and the economic spheres tend to blame each other in terms of poverty and environmental degradation. But what is expected is that they recognize their mistakes and find forms of interaction oriented to the common good. While some are scrambling only for economic benefit and others are obsessed only by maintaining or increasing power, we're left with wars or ambiguous arrangements where the two parties are barely interested in preserving the environment and taking care of weaker. Here too, the principle that "unity is superior to the conflict." [140 Ibid., 228: AAS 105 (2013), 1113.]

V. RELIGIONS IN DIALOGUE WITH THE SCIENCES

199. One can not argue that the empirical sciences explain fully life, the essence of all creatures and the whole of reality. This would mean unduly overcoming their limited methodological boundaries. If you reflect on this restricted framework, aesthetic sensitivity, poetry, and even the capacity of reason to grasp the meaning and purpose of things disappear. [141 Cf. Lett. Enc.

Lumen Fidei (29 June 2013), 34: AAS 105 (2013), 577: "The light of faith, together with the truth of love, is not alien to the material world, because love will live forever in the body and soul; the light of faith is light incarnate, who proceeds from the luminous life of Jesus. It also illuminates the matter, trust in your order, knows that it opens a path of harmony and understanding wider. The gaze of science thus receives a benefit by faith: this invites the scientist to remain open to reality, in all its inexhaustible richness. Faith awakens a critical sense, as it prevents the search to be satisfied in its formulas and helps you to understand that nature is getting bigger. Inviting to wonder at the mystery of creation, faith broadens the horizons of reason to illuminate more of the world that opens to the study of science. "] I want to remember that "the classical religious texts can provide a meaning for all ages, have a motivating force that opens new horizons [...]. Is it reasonable and intelligent to relegate them to darkness only because they were born in the context of a religious belief?". [142 Apostolic. ap. Evangelii gaudium (24 November 2013), 256: AAS 105 (2013), 1123.] In fact, it is simplistic to think that ethical principles can arise in a purely abstract manner, detached from any context, and the fact that they appear within a religious language does not detract from their value in any public debate. The ethical principles that reason is capable of perceiving can always reappear under different clothes, and be expressed in different, even religious languages.

200. On the other hand, any technological solution that science will claim to make will be powerless to solve the serious problems of the world if humanity loses its course, if we forget the big reasons that make it possible to live together, the sacrifice, the goodness. In any case, it

will be necessary to appeal to the believers so that they are consistent with their faith and do not contradict with their actions, we must insist that they open again to the grace of God and they draw from their deep convictions about love, justice and peace. If a poor understanding of our principles led us at times to justify the abuse of nature or the despotic rule of human beings over creation, or wars, injustice and violence, as believers we can recognize that in this way we are been unfaithful to the treasure of wisdom that we should cherish. Many times the levels of different cultural epochs have influenced the awareness of one's ethical and spiritual, but it is precisely the return to their respective sources which allows religions to better respond to current needs.

201. Most of the inhabitants of the planet declare themselves believers, and this should push religions to enter into a dialogue with each other oriented to the care of nature, to the defense of the poor, to build a network of respect and brotherhood. It is also essential to have dialogue between the sciences themselves, since each is usually closed within the limits of its own language, and specialization tends to become isolation and absolutization of knowledge. This prevents it from adequately addressing environmental problems. Equally it is necessary to have an open and respectful dialogue between the different ecological movements, among which there are ideological struggles. The severity of the ecological crisis requires us all to think about the common good and to move forward on the path of dialogue that requires patience, asceticism and generosity, always remembering that "the reality is superior to the idea." [143 Ibid., 231: p. 1114.]

CHAPTER SIX

ECOLOGICAL EDUCATION AND SPIRITUALITY

202. Many things need to reorient their route, but first of all it is humanity that needs to change. Lacking is the consciousness of a common origin, a mutual belonging and a shared future for all. This knowledge base would allow the development of new beliefs, new attitudes and lifestyles. Thus emerges a great cultural, spiritual and educational challenge involving long processes of regeneration.

I. POINTING TO ANOTHER WAY OF LIFE

203. Since the market tends to create a compulsive consumerist mechanism to place its products, people end up being overwhelmed by the vortex of purchases and unnecessary expenses. Obsessive consumerism is the subjective reflection of the techno-economic paradigm. What happens Romano Guardini already signaled: the human being "takes ordinary objects and the usual forms of life as well as are imposed by rational plans and normalized by the machines and, overall, he does so with the impression that this is reasonable and just." [144 *Das Ende der Neuzeit*, 1965 Würzburg, 66-67 (ed. it. *The end of the modern era*, Brescia 1987, 61).] This paradigm makes everyone believe that they are free by retaining a claim to the freedom to consume, when in fact those who own freedom are those that are part of the minority who hold economic and financial power. In this confusion, post-modern humanity has not found a new understanding of itself that can direct itself, and this lack of identity is lived with anxiety. We have too many

paths to limited and stunted purposes.

204. The current situation of the world "causes a sense of precariousness and insecurity, which in turn promotes forms of collective selfishness." [145 John Paul II, Message for the World Day of Peace 1990, 1: AAS 82 (1990) , 147.] When people become self-referential and isolate themselves in their consciousness, they increase their greed. The more a person's heart is empty, the more he needs items to buy, possess and consume. In this context it does not seem possible that anyone could accept that reality poses a limit. In this perspective, there is not even a true common good. If this is the type of person who tends to predominate in a society, the rules will be respected only to the extent that they do not contradict their needs. So we do not think only to the possibility of terrible weather phenomena or major natural disasters, but also to disasters derived from social crises, because the obsession with lifestyle consumerism, especially when only a few can sustain it, will only result in violence and mutual destruction.

205. Yet, all is not lost, because human beings, capable of degradation in the extreme, they can also overcome, returning to choose the good and regenerating, beyond any social and psychological conditioning that is imposed on them. They are able to look at themselves honestly, emerging from their disgust and to new paths to true freedom. There are no systems that nullify completely the doorway to goodness, truth and beauty, nor the ability to react, that God continues to encourage from the bottom of our hearts. Every person in this world, I ask you not to forget this dignity that no one has

the right to remove from you.

206. A change in lifestyle may come to exert a healthy pressure on those holding political, economic and social power. It is what happens when consumer movements can cause you to stop buying certain products and thus become effective in changing the behavior of companies, forcing them to consider the environmental impact and production patterns. It is a fact that, when social habits affect corporate profits, these forces are seen to produce in another way. This reminds us of the social responsibility of consumers. "Buying is always a moral act, as well as economic." [146 Benedict XVI, Enc. Lett. Caritas in Veritate (29 June 2009), 66: AAS 101 (2009), 699.] To this day, "the theme of environmental degradation due to the behavior of each of us." [147 Id., Message for the World Day of Peace 2010, 11: AAS 102 (2010), 48.]

207. The Earth Charter was calling us all to leave behind a stage of self-destruction and to start again, but we have not yet developed a universal consciousness that makes it possible. For this I dare to propose that precious challenge again: "As never before in history, common destiny beckons us to seek a new beginning [...]. May ours be a time remembered for the awakening of a new reverence for life, the firm resolve to achieve sustainability, the quickening of the struggle for justice and peace, and the joyful celebration of life." [148 the Earth Charter, The Hague (29 June 2000).]

208. You can always develop a new ability to leave self-

interest for others. Without it you do not recognize in other creatures their own value, do not care to take care of something for the benefit of others, lack the ability to set limits to avoid suffering or degradation of our surroundings. The fundamental attitude of self-transcendence, breaking the isolated consciousness and the self, is the root that makes possible all caring for others and the environment, and brings forth the moral reaction to consider the impact caused by any action and from any personal decision outside of oneself. When we are able to overcome individualism, it can actually produce an alternative lifestyle and can become a significant change in society.

II. TEACHING THE ALLIANCE BETWEEN MANKIND AND THE ENVIRONMENT

209. Awareness of the seriousness of the cultural and ecological crisis must be translated into new habits. Many know that the current progress and the accumulation of objects or simple pleasures are not enough to give meaning and joy to the human heart, but they do not feel able to give up what the market offers them. In countries that should yield the greatest changes in consumption habits, the young have a new ecological awareness and a generous spirit, and some of them are fighting admirably for environmental protection, but grew up in an environment of high consumption and of well-being that makes the maturation of other habits difficult. This is why we are faced with an educational challenge.

210. Environmental education has been expanding its targets. If at first it was very centered on scientific information and on awareness and prevention of environmental risks, now it tends to include a critique of

the "myth" of modernity based on instrumental reason (individualism, indefinite progress, competition, consumerism, market without rules) and also to recover the different levels of ecological balance: with the inner self, to solidarity with others, the natural one with all living beings, the spiritual with God. Environmental education should prepare us to make that leap towards Mystery, from which ecological ethics draws its deepest meaning. On the other hand there are teachers able to reset the pedagogical itineraries of ecological ethics, so they actually help to grow in solidarity, responsibility and care based on compassion.

211. However, this education, called to create an "ecological citizenship", sometimes merely informs and cannot cultivate habits. The existence of laws and regulations is not sufficient in the long term to restrict bad behavior, even when there is a valid control. In order for the rule of law to produce lasting significant effects it is necessary that most of the members of society accepted it with adequate motivations, and respond through personal transformation. Only starting from the solid virtues is it possible to cultivate the gift of self in an ecological commitment. If a person, although his economic conditions enables him to consume and spend more, usually blankets himself a bit instead of turning on the heating, it is supposed he has acquired beliefs and ways of feeling favorable to environmental care. It is very noble to assume the task of taking care of creation with small daily actions, and it is wonderful that education is able to motivate them to give shape to a way of life. Education for environmental responsibility can encourage various behaviors that have a direct and important effect in caring for the environment, like avoiding the use of plastic or paper, reducing water

consumption, waste separation, only cooking what you can eat reasonably, handling with care other living beings, using public transport or sharing the same vehicle between several people, planting trees, turning off unnecessary lights, and so on. All this is part of a generous and dignified creativity, showing the best of the human being. Reusing something instead of discarding it quickly, starting from deep motivations, can be an act of love that expresses our dignity.

212. One should not think that these efforts will not change the world. These actions spread good in a society that always produces fruits beyond what we can see, because they cause within this land a benefit that tends to spread, sometimes invisibly. Moreover, the exercise of such behavior gives us a sense of our dignity, leads to greater existential depth, allows us to experience that it is worth going through this world.

213. The educational aspects are various: the school, the family, the media, catechesis, and others. A good school education in childhood and adolescence plants seeds that can produce effects throughout life. But I wish to emphasize the central importance of the family, because "it is the place in which life, the gift of God, can be properly welcomed and protected against the many attacks to which it is exposed, and can develop in accordance with what constitutes authentic human growth. Against the so-called culture of death, the family is the heart of the culture of life." [149 John Paul II, Enc. Lett. Centesimus Annus (May 1, 1991), 39: AAS 83 (1991), 842.] In the family is cultivated the first habits of love and care for life, such as the proper use of things,

order and cleanliness, respect for the local ecosystem and the protection of all creatures. The family is the place of integral formation, in which the different aspects of personal maturity, intimately related to each other, unfold. In the family you learn to ask permission without arrogance, to say "thank you" as an expression of heartfelt appreciation for the things we receive, to dominate aggression or greed, and apologize when we do something wrong. These small acts of sincere kindness help build a culture of life and shared respect for our surroundings.

214. At the political and the various associations the effort to form conscience competes. Competes before the Church. All Christian communities have an important role to fulfill in this education. I also hope that in our seminaries and religious houses of instruction is education of a responsible austerity, grateful contemplation of the world, care for the fragility of the poor and the environment. Because much is at stake, as well as needing institutions with the power to penalize attacks on the environment, we also need to control ourselves and to educate each other.

215. In this context, "should not be overlooked [...] the relationship that exists between adequate aesthetic education and the maintenance of a healthy environment." [150 Id., Message for the World Day of Peace 1990, 14: AAS 82 (1990), 155.] Paying attention to the beauty and love helps us to get out of utilitarian pragmatism. When you do not learn to stop to admire and appreciate the beautiful, is not it strange that everything will turn to the subject of the use and abuse without scruples. At the same time, if you want to

achieve profound changes, it must be remembered that the thought patterns actually affect behavior. Education will be ineffective and its efforts will be fruitless unless we are also concerned to promote a new model about the human being, life, society and the relationship with nature. Otherwise it will continue to run on the consumer model transmitted by the media and through efficient market mechanisms.

III. THE ECOLOGICAL CONVERSION

216. The great wealth of Christian spirituality, generated by twenty centuries of personal and community experiences, constitutes a magnificent contribution to offer to the effort to renew humanity. I wish to propose to Christians a few lines of ecological spirituality arising from the convictions of our faith, because what the Gospel teaches us has consequences on our way of thinking, feeling and living. It is not so much to talk about ideas, but above all of the reasons that derive from spirituality in order to feed a passion for the care of the world. In fact you will not engage in great matters only with the doctrines, without a mysticism that encourages us, without "some inner motive that drives, motivates, encourages and gives meaning to the action staff and community." [151 Apostolic. ap. *Evangelii gaudium* (24 November 2013), 261: AAS 105 (2013), 1124.] We must recognize that we Christians have not always collected and made to yield the riches that God has given to the Church, where the spirituality is not separate from your body, nor from the nature or reality of this world, but he lives with them and in them, in communion with all that surrounds us.

217. If "the external deserts multiply in the world, because the internal deserts have become so vast," [152

Benedict XVI, Homily for the solemn inauguration of the Petrine Ministry (24 April 2005): AAS 97 (2005), 710.] the ecological crisis is a call to a profound inner conversion. However we must also recognize that some Christians committed and devoted to prayer, with the pretext of realism and pragmatism, often flout environmental concerns. Others are passive, deciding not to change their habits and becoming incoherent. Therefore they lack an ecological conversion, which involves letting out all the consequences of the encounter with Jesus into relations with the world around them. To live the vocation of being guardians of God's work is an essential part of a virtuous life, it is not something optional and not a secondary aspect of the Christian experience.

218. We recall the model of St. Francis of Assisi, to propose a healthy relationship with creation as a dimension of the conversion of the whole person. This also requires recognition of ones errors, sins, faults or negligence, and repenting of the heart, changing from within. The Bishops of Australia have been able to express the conversion in terms of reconciliation with creation: "To achieve this reconciliation, we must examine our lives and recognize how we offend God's creation with our actions and with our inability to act. We need to experience a conversion, a change of heart." [153 Conference of Catholic Bishops, *A New Earth. The Environmental Challenge* (2002).]

219. However, it is not enough that everyone is improved to resolve a situation as complex as that facing the world today. Individuals may lose the ability and the freedom to overcome the logic of instrumental reason and end up succumbing to consumerism without ethics

and without social and environmental sense. Social problems are answered with community networks, not just the sum of individual goods: "The needs of this work will be so immense that the opportunities for individual initiative and cooperation of the individual, individualistic formats, will not be able to answer. It will require a combination of resources and a unit of contributions. "[154 Romano Guardini, *Das Ende der Neuzeit*, 72 (trans. It.: *The end of the modern age*, 66).] The ecological conversion that is required to create a dynamic of lasting change is also a communal conversion.

220. This conversion involves various attitudes that combine to enable a cure that is generous and full of tenderness. First involves gratitude and gratuity, namely a recognition of the world as a gift received by the love of the Father, which causes as a result of the gift free provisions and generous gestures even if no one sees them or recognize them, "Do not let your left hand know what your right is doing [...] and your Father who sees in secret will reward you" (Mt 6.3 to 4). It also implies the loving consciousness of not being separated from other creatures, but to form with other beings in the universe a wonderful universal communion. For the believer, the world is contemplated not from without but from within, recognizing the links with which the Father has united with all beings. In addition, increasing the peculiar skills that God has given to every believer, the ecological conversion leads him to develop his creativity and enthusiasm, in order to resolve the tragedies of the world, offering himself to God "as a living, holy and acceptable sacrifice" (Rom 12,1). He does not interpret his superiority as a ground for personal glory or irresponsible dominion, but as a different ability which

in turn imposes a grave responsibility that comes from his faith.

221. Several convictions of our faith, developed at the beginning of this encyclical, help to enrich the sense of such a conversion, as the awareness that all creation reflects something of God and has a message to send, or the certainty that Christ took in himself this material world and now, risen, dwelling within every being, surrounding them with his affection and penetrating them with his light. As well as the recognition that God created the world by inscribing it in an order and a dynamism that the human being does not have the right to ignore. When we read in the Gospel that Jesus speaks of the birds and says that "not one of them is forgotten before God" (Lk 12,6), will we be able to maltreat them and cause them harm? I invite all Christians to make explicit this dimension of his conversion, allowing the force and the light of grace received also to extend to their relationship with other creatures and with the world around them, and raise the sublime brotherhood with all creation that St. Francis of Assisi lived in a so luminous manner.

IV. JOY AND PEACE

222. Christian spirituality offers an alternative way of looking at quality of life, and encourages a prophetic and contemplative lifestyle, able to rejoice deeply without being obsessed with consumption. It is important to accommodate an ancient teaching, present in different religious traditions, and even in the Bible. This is the belief that "less is more". In fact, the constant accumulation of the ability to consume distracts the heart and prevents appreciating everything and every moment. On the contrary, being present serenely in front

of every reality, however small it may be, opens up many more possibilities for understanding and fulfillment. Christian spirituality proposes an increase in sobriety and a capacity to take delight with less. It is a return to simplicity that allows us to stop and enjoy the little things, to thank the possibilities that life offers, not clinging to what we have nor grieving for what we do not possess. This requires you to avoid the dynamics of domination and the mere accumulation of pleasures.

223. Sobriety, lived freely and consciously, is liberating. Not less life, not low intensity, but quite the opposite. For those who taste more and live better each time are those who will stop pecking here and there, always trying what they have not, and experiencing what it means to appreciate every person and every thing, they learn to become familiar with the simplest realities and they know how to be delighted. In this way they can reduce unmet needs and reduce fatigue and anxiety. You may need very little and live well, especially when you are able to make room for other pleasures and satisfaction that lies in fraternal meetings, in service, in building on your personal gifts, in music and art, in contact with nature, in prayer. Happiness needs to be able to limit some of the needs that daze us, thus remaining available for the many possibilities that life offers.

224. Sobriety and humility have not enjoyed a positive consideration this last century. But when we weaken across the board the exercise of any virtue in personal and social life, it ends up causing multiple imbalances, including environmental ones. For it is no longer enough just to mention the integrity of ecosystems. We must have the courage to speak of the integrity of human life, the need to promote and to combine all the great values.

The disappearance of humility, in a human being overly impressed by the ability to dominate everything with no limit, can only end up harming society and the environment. It is not easy to mature this healthy humility and a happy sobriety if we become autonomous, if we exclude God from our lives and our ego occupies his place, if we believe it is our subjectivity to determine what is good and what is bad.

225. On the other hand, no person may mature into a happy sobriety if not at peace with himself. And part of a proper understanding of spirituality is to broaden our understanding of peace, which is far more than the absence of war. The inner peace of the people is closely linked to the ecology and care for the common good, because, authentically lived, it is reflected in a balanced lifestyle coupled with an ability to surprise leading to the depth of life. Nature is full of words of love, but can we hear in the middle of constant noise, of permanent and anxious distraction, or of the cult of appearances? Many people experience a profound imbalance that drives them to do things at full speed to be occupied, in a constant hurry, which in turn leads them to overwhelm everything they have around them. This affects the way we treat the environment. An integral ecology requires spending some time to recover the serene harmony with creation, reflecting on our way of life and our ideals, contemplating the Creator, who lives among us and in our surroundings, and whose presence "is not to be built, but is discovered and revealed." [155 Apostolic. ap. *Evangelii gaudium* (24 November 2013), 71: AAS 105 (2013), 1050.]

226. We are talking about an attitude of the heart, which lives throughout with serene attention, which knows

how to remain fully present in front of someone without stopping to think about what comes next, which is delivered at all times as a divine gift to be lived in fullness. Jesus taught us this attitude when he invited us to look at the lilies of the field and the birds of the sky, or when in the presence of a disciple, "he fixed his gaze on him" and "loved him" (Mk 10:21) . Yes, he knew how to stay fully present before every human being and before every creature, and so showed us a way to overcome the sick anxiety that makes us superficial, aggressive and recklessly consumerist.

227. An expression of this attitude is to stop and thank God before and after meals. I propose to believers that they take this valuable habit and live with depth. This time of blessing, although very short, reminds us our dependence on God for life, strengthens our sense of gratitude for the gifts of creation, is grateful to those who by their work provide these goods, and strengthening solidarity with the most needy.

V. CIVIL AND POLITICAL LOVE

228. Caring for nature is part of a lifestyle that involves the ability to live together and communally. Jesus reminded us that we have God as our common Father and that this makes us brothers. Brotherly love can only be free, can never be compensated for what another produces, nor an advance for what we hope to do. Therefore it is possible to love our enemies. This same gratuity leads us to love and accept the wind, the sun or the clouds, although they submit to our control. This is why we can speak of a universal brotherhood.

229. We need to hear again that we need each other, that

we have a responsibility to others and to the world, that it is worth it to be good and honest. Already for too long we have been in moral degradation, by taking as a game ethics, goodness, faith, honesty, and the time has come to recognize that this cheerful superficiality serves us little. Such destruction of any foundation of society ends up setting us off against each other to defend our interests; it causes the rise of new forms of violence and cruelty; and it prevents the development of a true culture of environmental care.

230. The example of Saint Therese of Lisieux invites us to practice the little way of love, not to miss the opportunity of a kind word, a smile, any small gesture that sows peace and friendship. An integral ecology is also made of simple everyday actions in which we break the logic of violence, exploitation, selfishness. Conversely, the world consumption is exasperated at the same time the world's mistreatment of life in all its forms.

231. Love, filled with small gestures of caring for each other, is also civil and political, and manifests itself in all actions that seek to build a better world. The love for society and commitment to the common good is an eminent form of charity, which concerns not only the relations between individuals, but also "macro-relations, social, economic, political relations." [156 Benedict XVI , Lett. enc. Caritas in Veritate (29 June 2009), 2: AAS 101 (2009), 642.] For this reason the Church has proposed to the world the ideal of a "civilization of love". [157 Paul VI, Message for the World Day Peace 1977: AAS 68 (1976), 709.] Social love is the key to genuine development: "To make the company more human, more worthy of the person, should be reassessed

love in social life - wide, political, economic, cultural - making it the constant and supreme norm of action. "[158 Pontifical Council for Justice and Peace, Compendium of the Social Doctrine Church, 582.] In this framework, together with the importance of small everyday gestures, social love urges us to think about grand strategies to halt environmental degradation effectively and encourage a culture of care that permeate all of society. When someone recognizes the call of God to act together with others in these social dynamics, he must remember that this is part of his spirituality, which is the practice of charity, and which in this way matures and sanctifies.

232. Not all are called to work directly in politics but in society there flourishes an innumerable variety of associations intervening in favor of the common good, protecting the natural and urban environment. For example, they care for a public place (a building, a fountain, a neglected monument, a landscape, a square), protecting, restoring, enhancing or beautifying something that belongs to everyone. Around them develop or regain ties and is a new local social fabric. So a community frees itself from consumerist indifference. This also means cultivating a common identity, a history that is preserved and transmitted. In this way we take care of the world and the quality of life of the poorest, with a sense of solidarity that is at the same time awareness of living in a common house that God has entrusted to us. These community actions, when they express a love that gives itself, can turn into intense spiritual experiences.

VI. THE SACRAMENTAL SIGNS AND THE CELEBRATORY REPOSE

233. The universe grows in God, who fills everything. So

there is a mystery to be contemplated in a leaf, in a path, in the dew, in the face of the poor. [159 A spiritual master, Ali Al-Khawas, from his experience, stressed the need to not separate too much the creatures of the world from the experience of God within. He said: "There is no need to criticize a priori those seeking the ecstasy in music or poetry. There is a subtle secret in each of the movements and sounds of this world. Initiates come to pick up what they say the wind blowing, the trees bend, flowing water, the flies that buzz, the creaking doors, the birds singing, the sound of the strings and flute, the sigh the sick, the cry of the afflicted ... "(Eva De Vitray Meyerovitch [ed.], *Anthologie du soufisme*, Paris 1978, 200; trans. it.: *The mystics of Islam*, Parma 1991, 199).] The ideal is not just going from externality to interiority to discover the action of God in the soul, but also get to meet him in all things, as taught by St. Bonaventure: "Contemplation is much higher as man feels in himself the effect of divine grace or the more God can be recognized in other creatures." [160 In II Sent., 23, 2, 3]

234. St. John of the Cross taught that all that is good in things and experiences of the world "is eminently in God in an infinite manner or, to say it better, he is each of these sizes you preach." [161 *Cántico Espiritual*, XIV, 5.] It is not because the limited things of the world are truly divine, but that the mystic experiences the intimate bond that exists between God and all beings, and so "feels that God is for him all things." [162 *Ibid.*] If he admires the greatness of a mountain, he cannot separate this from God, and feels that this inner admiration that he lives must rest in the Lord: "The mountains have peaks, are high, impressive, beautiful, pretty, flowery and fragrant. As those mountains is the Beloved to me. The secluded valleys are quiet, pleasant, cool, shady, full of sweet

water. For the variety of their trees and the gentle birdsong and recreate the sense and delight greatly in their solitude and silence their offer refreshment and rest: this valley is my Beloved to me." [163 Ibid., XIV, 6-7.]

235. The Sacraments are a privileged way in which nature is taken up by God and transformed in mediation of the supernatural life. Through worship, we are invited to embrace the world in a different plane. Water, oil, fire and colors are taken with all their symbolic power and are incorporated in praise. The hand is the instrument of God's blessing and reflected the closeness of Christ who came to join us in the journey of life. The water that is poured on the body of the child who is baptized is a sign of new life. Not fleeing from the world nor denying the nature when we meet with God. This can be felt especially in the spirituality of Eastern Christianity: "Beauty, which in the East is one of the words most frequently used, is usually expressing the divine harmony and the model transfigured humanity, appears everywhere: in the shape of the church, in the sounds, colors, lights and scents." [164 John Paul II, Lett. Ap. Orientale Lumen (2 May 1995), 11: AAS 87 (1995), 757.] For the Christian experience, all the creatures of the material universe find their true meaning in the Incarnate Word, because the Son of God has incorporated in his person part of the material universe, where he introduced a seed of ultimate transformation: "Christianity does not reject matter, corporeality; on the contrary, it rejoices in the liturgical act, in which the human body shows its intimate nature of the temple of the Spirit and comes to join the Lord Jesus, He also made the body for the world's salvation." [165 Ibid.]

236. In the Eucharist, creation finds its higher elevation. Grace, which tends to appear to an appreciable extent, reaching a wonderful expression when God himself became man, gets to be eaten by his creature. The Lord, at the height of the mystery of the Incarnation, could reach our intimacy through a piece of matter. Not from above but from within, so in our own world could we meet him. In the Eucharist this fullness has already been realized, and is the vital center of the universe, the heart overflowing with love and inexhaustible life. Joined with the incarnate Son, present in the Eucharist, the whole cosmos gives thanks to God. In fact, the Eucharist is in itself an act of cosmic love, "Yes, cosmic! Because even when it is celebrated on the humble altar of a country church, the Eucharist is always in some sense, on the altar of the world." [166 Id., Lett. Enc. Ecclesia de Eucharistia (17 April 2003), 8: AAS 95 (2003), 438.] The Eucharist unites heaven and earth, embraces and penetrates all creation. The world, that come from the hands of God, returns to Him in worship and joyful: in the Eucharistic Bread "creation is projected towards divinization, toward the holy wedding feast, toward unification with the Creator himself." [167 Benedict XVI, Homily at the Mass of Corpus Christi (June 15, 2006): AAS 98 (2006), 513.] Thus the Eucharist is a source of light and gives reasons for our concerns for the environment, and gives direction to be custodians of all creation.

237. On Sunday, the participation in the Eucharist is particularly important. This day, just like the Jewish Sabbath, offers a day of restoration of the relations of human beings with God, with themselves, with others and with the world. Sunday is the day of the Resurrection, the "first day" of the new creation, the first

fruits of which is the humanity of the risen Lord, guaranteeing the final transfiguration of all created reality. In addition, this day announces "man's eternal rest in God." [168 Catechism of the Catholic Church, 2175.] In this way, Christian spirituality integrates the value of rest and celebration. Human beings tend to reduce contemplative repose to the scope of the useless and sterile, forgetting that one takes off work so that its most important attribute is found: its meaning. We are called to include in our work a receptive and free dimension, which is different from a simple inactivity. This is another way of acting which is part of our essence. In this way human action is preserved not only from an empty activism, but also from the unbridled greed and isolation of consciousness that leads to chase exclusive personal benefit. The law of the weekly rest requires you to abstain from work on the seventh day, "so that you can enjoy quiet your ox and your donkey may rest and the son of thy handmaid and the stranger" (Exodus 23:12). This rest is an extension of the gaze that allows you to return to acknowledging the rights of others. So, the day of rest, whose center is the Eucharist, spreads its light over the entire week, and encourages us to take care of our nature and the poor.

VII. THE TRINITY AND THE RELATIONSHIP BETWEEN CREATURES

238. The Father is the ultimate source of all, a loving and communicative foundation of what exists. The Son, who reflects, and through whom all things were made, joined this land when he took shape in the womb of Mary. The Spirit, infinite bond of love, is intimately present in the heart of the universe and animating and sustaining new paths. The world was created by the three persons as a single divine principle, but each of them carries this

common work according to his own personal identity. Therefore, "when we contemplate with admiration the universe in its grandeur and beauty, we must praise the whole Trinity." [169 John Paul II, Catechesis (August 2, 2000), 4: L'Osservatore 23/2 (2000), 112.]

239. For Christians, believing in one God who is a Trinitarian communion leads us to believe that all reality contains a properly Trinitarian imprint. St. Bonaventure came to say that the human being, before the fall, he could find out how each creature "testifies that God is triune." The reflection of the Trinity could be recognized in nature "even when that book was obscure for the man, nor the man's eye was fouled." [170 Quaest. disp. de Myst. Trinitatis, 1, 2, concl.] The Franciscan saint teaches us that every creature carries a properly Trinitarian structure, so real that it could be spontaneously contemplated if the gaze of the human being is not limited, dark and fragile. In this way he shows us the challenge of trying to read reality in a Trinitarian key.

240. The divine Persons are subsistent relations, and the world, created after the divine model, it is a web of relationships. Creatures tend towards God, and in turn belongs to every living thing tending towards something else, so that within the universe we can see countless ongoing relationship that secretly weave together [171 Cf. Thomas Aquinas, Summa Theologica I, q. 11, art. 3; q. 21, art. 1 to 3; q. 47, art. 3.]. This not only invites us to admire the many links that exist between the creatures, but also leads us to discover a key to our own realization. Indeed the human person especially grows, matures and sanctifies as he enters into a relationship, when he leave himself to live in communion with God, with others and with all creatures. So he assumes in his life that triune

dynamism God has imprinted in him ever since his creation. Everything is connected, and this invites us to develop a spirituality of global solidarity that flows from the mystery of the Trinity.

VIII. THE QUEEN OF ALL CREATION

241. Mary, the mother who took care of Jesus, now takes care of this wounded world with maternal affection and grief. As she wept with her heart pierced Jesus' death, now she has compassion for the suffering of the crucified poor and of the creatures of this world exterminated by human power. She lives with Jesus completely transformed, and all creatures sing her beauty. She is the woman "clothed with the sun, with the moon under her feet and a crown of twelve stars on her head" (Rev 12,1). High in the sky, she is Mother and Queen of all creation. In her glorified body, along with the risen Christ, the creation has reached the fullness of her beauty. She not only keeps in her heart all the days of Jesus, who she "kept" carefully (cf. Lk 2,19.51), but now also includes the meaning of all things. So we ask you to help us look at the world with wiser eyes.

242. Together with her, in the holy family of Nazareth, stands the figure of St Joseph. He took care of and defended Mary and Jesus with his work and his generous presence, and rescued them from the violence of the unjust by taking them to Egypt. In the Gospel he looks like a good man, hardworking, strong. But in his figure also emerges a great tenderness, that is not of one who is weak but who is truly strong, caring in reality to love and serve humbly. For this he was declared guardian of the universal Church. He, too, can teach us to care, can motivate us to work with generosity and tenderness to

protect this world that God has entrusted to us.

IX. BEYOND THE SUN

243. In the end we will meet face to face with the infinite beauty of God (cf. 1 Cor 13:12) and we read with admiration the joyful mystery of the universe, who will participate with us in the endless fullness. Yes, we are traveling towards eternity on Saturday, toward the new Jerusalem, towards the common house of the sky. Jesus tells us: "Behold, I make all things new" (Rev 21,5). Eternal life is a marvel shared, where every creature, luminously transformed, will take its place and will have something to offer to the finally freed poor.

244. In the meantime, we unite to take care of this home that was entrusted to us, knowing that whatever good there is in it will be taken on the feast of heaven. Together with all creatures, we walk on this earth seeking God, because "if the world has a beginning and was created, who created it look, look who gave beginning, the one who is his Creator." [172 Basilio Great, Hom. in Hexaemeron, 1, 2, 6: PG 29, 8.] We walk singing! Amid our struggles and our concern for this planet we take away the joy of hope.

245. God, who calls us to generous dedication and to give everything, gives us the strength and the light we need to move forward. In the heart of this world is always present the Lord of life who loves us so much. He does not abandon us, do not leave us alone, why he joined us permanently with our land, and his love leads us always to find new ways. To Him be praise!

* * *

246. After this prolonged reflection, joyful and dramatic collection, I propose two prayers, one that we can share

all of us who believe in God the creator and father, and another that we Christians know assume commitments for creation that the Gospel of Jesus It offers us.

Prayer for our Earth

Almighty Lord,
that you are present throughout the universe
and in the smallest of your creatures,
You who surround with your tenderness
all that exists,
pour into us the strength of your love
so that we take care
of life and beauty.
Flood us with peace,
so that we live as brothers and sisters
without harming anyone.
Father of the poor,
help us to redeem the abandoned
and forgotten in this land
that are so worthy in your eyes.
Heal our lives,
so that we protect the world
and not plunder it,
so that we sow beauty
and not destruction and pollution.
Touch the hearts
of those who seek only benefits
at the expense of the poor and of the earth.
Teach us to discover the value of everything,
to contemplate with amazement,
to recognize that we are deeply united
with all creatures
on our way to your infinite light.

Thank you because you are with us every day.
Support us, please, in our struggle
for justice, love and peace.

Christian prayer, with creation

Praise You, Father, with all your creatures,
which are emanences from your mighty hand.
They are yours, and are full of your presence
and your tenderness.

Praised be!

Son of God, Jesus,
you were all things created.
You have taken shape in the womb of Mary,
you've been part of this land,
and you looked at this world with human eyes.
Today you are alive in all creation
with your glory of the risen.

Praised be!

Holy Spirit, that with your light
directs this world to the Father's love
and accompanies the groaning of creation,
you also live in our hearts
lead us to good.

Praised be!

Lord God, One and Three,
beautiful community of infinite love,
teach us to contemplate
the beauty of the universe,
where everything is about you.
Awaken our praise and our gratitude
for all that you have created.
Give us the grace to feel intimately united
with all that exists.

God of love, show us our place
in this world
as instruments of your love
for all beings of this earth,
because not one of them is forgotten by you.
Illumine the masters of power and money
so that they do not fall into sin of indifference,
love the common good, promote the weak,
and take care of the world we inhabit.
The poor and the earth are crying:
Lord, take us with your power and your light,
to protect all life,
to prepare for a better future,
so that comes your kingdom
of justice, of peace, of love and beauty.
Praised be!

Amen.

Given in Rome, at Saint Peter's, on May 24, the Solemnity
of Pentecost, in the year 2015, the third of my
Pontificate.