

# **The relationship between monasteries and the environment: a declaration by the Cistercian Congregation of the Royal Crown of Aragon (2009)**

## ***Abbreviations***

CC --The Constitution of the Cistercian Congregation of the Royal Crown  
of Aragon

RB --*The Rule of Saint Benedict*

PC --Vatican Council II Decree, *Perfectae Caritatis*

## **Introduction**

§1. The Cistercian Congregation of the Royal Crown of Aragon is a monastic congregation, adherent to the universal law of the Roman Catholic Church and to the constitutions of the Cistercian Order. It enjoys collegiate legal status, by which the right of ownership of its properties and their autonomous administration is afforded. (CC, Art 1) The Congregation currently includes the Monastery of Santa Maria de Poblet (whose Abbot is designated Congregational President), the Convent Priory of Santa Maria de Solius, and the Nunneries of Vallbona and of Valldonzella de Barcelona.

§2. The Congregation of the Royal Crown of Aragon was originally founded as a result of Pope Paul V's brief *Pastoralis Officii* of April 19, 1616. The restoration of its status, with all its inherent rights and responsibilities –revoked by the 1835 Abolition of Monasteries Act, which had placed them under secular state control -- was realized on July 16, 1987, during the Synod of Stams.<sup>1</sup>

§3. Amongst the constitutional objectives placed upon The Congregation of the Royal Crown of Aragon are the following (CC, Art 3):

- a) To promote the Cistercian lifestyle, causing it to thrive and flourish anew within its congregation.
- b) To adhere more strictly to its religious observances.
- c) To be more prompt in the execution of its charitable obligations.
- d) To successfully overcome all obstacles to the congregational, monastic lifestyle.
- e) To investigate and implement more simple and efficient means of realizing the work of the Church.
- f) To pay special attention to the mutual support of the constituent monasteries, thus allowing them to carry out the task of guiding souls more effectively.

§4. The rules which order our congregational life are these:

- a) The supreme law of our life: that is, to follow Jesus Christ as proposed in the Holy Scriptures (PC, 2a) and by the *Magisterium* of the Roman Catholic Church.

- b) *The Rule of Saint Benedict*, interpreted following the General Chapter Declaration “key elements in the modern-day Cistercian lifestyle” and the Constitutions of the Congregation.
- c) The Constitutions of the Cistercian Order and of the Congregation.
- d) The decisions of the General Chapter of the Order, in accordance with the Order’s Constitutions.
- e) The decisions of the Chapter of The Cistercian Congregation of the Royal Crown of Aragon; be they decrees, precepts or guidelines.
- f) The established customs of the Congregation.
- g) The privileges shared by all Cistercian Congregations (CC, Art 4).

## **Part One**

### ***The basis of the Christian faith***

§5. Our faith teaches that God created the world, and that it was good. *The Book of Genesis* tells us that God created Heaven and Earth: the sky, the earth, the water and the sun, and all of its plants and animals by His own Word. Everything has been made by God’s own hand, and everything is dependent on Him. In this way, while *Genesis* does not precisely explain how or by what means everything has come to be; it does confirm the unity of all things, their inherent goodness, and that they share God’s providence.

§6. We similarly believe that God created man and woman in His own image and after His likeness. He gave them the Earth as their home and granted them dominion over it, commanding them to go forth and multiply. His creation of the first man from the dust of the Earth itself is symbolic of our inter-relationship with Him, with it, and with all living creatures. The fact that we share the image and likeness of God –a unique privilege amongst all living things-- places us in a position to care for them.

Dominion over the Earth has never given us the right to abuse and exploit nature, but rather a responsibility to administer it prudently: or, in modern terms, to ensure its sustainable use -- respecting its biodiversity, sharing its resources equally, considering both the needs of the present generation and also the needs of those to come.

§7. In spite of their primary objective to maintain this harmonious relationship with God, the man and the woman not only broke it, but also ruptured their bond with nature –part of their gift of life-- by trying to be like God. The unleashing of sin and of evil into the work of His Creation had (and has continued to have) devastating consequences throughout it. It destroyed the ties which favoured harmony and has led to the spread of violence, destruction and death in the world.

From that very moment, the relationship between man and woman and the natural world was radically changed: the garden that had sustained them became the cause of their sweat and toil, their hunger and fatigue. Mankind’s lordship over the Earth has become --in the majority of cases-- a thoughtless disrespect for its resources which has been executed, unfortunately, more and more intensively with the passing of time. Far from enjoying a harmonious relationship with nature, we have ruthlessly exploited it.

§8. Although God cast the man and the woman from Paradise, he did not abandon them altogether and, at a predestined moment in His infinite wisdom, he sent His only Son into the world to bring about His reconciliation with it. Christ, in effect, preached this change and offered us the salvation which enables us to live a renewed relationship with one another in His Church, and which restores our primordial harmony with the whole of Creation. Christians, as faithful followers and imitators of Christ, are firmly urged to continue this work of reconciliation, at all times and in all places.

### ***The basis of monastic tradition: The Rule of Saint Benedict and the Cistercian tradition***

§9. Of all Christians throughout history, the monastic communities have always stood out for their commitment to restoring this lost harmony, and for their united lifestyle in the Lord's service. This harmony and unity in their members' lives, when they have worked to refine it, spreads like ripples on a pond from brother to brother, and to all creatures. For this reason, monasteries are normally havens of peace and serenity and of beauty.

§10. The way to follow Christ in the monastery is established in The Solemn Profession, based on *The Rule of Saint Benedict*—theoretical guidelines on how the monastic lifestyle should be structured. By it, every monk vows to follow this framework within the monastery, swearing final obedience to the Abbot. The common and defining characteristics of The Solemn Profession enable the monks to integrate themselves into the life of any determined community. In this way, the foundations for this aforementioned lifestyle of harmony and unity are solidly established. Monastic life is, therefore, fundamentally designed to facilitate a harmonious co-existence with its surroundings.

§11. The monasteries' stability is guaranteed by their cloistral nature, which does not distance them from the world, but rather offers the necessary conditions to centre the monks in their vocation. For this reason, we find the following words written in *The Rule of Saint Benedict*:

“If it can be done, the monastery should be so situated that all the necessaries, such as water, the mill and the garden are enclosed; and that the various arts may be plied inside of the monastery, so that there may be no need for the monks to go about outside, because this is not good for their souls”.<sup>2</sup>

This ideal of self-sufficiency is the basis of a life in harmony with nature, which these days we call ‘a sustainable lifestyle’.

§12. The monks of Molesme: Robert (1028?-1111), Alberic (?-1109) and Stephen Harding (1060?-1134), showed themselves to be faithful to this Rule—which, in its general opening chapters, suggests that monasteries should not be constructed within cities, castles or towns, in order to assure the solitude necessary for their required orations.<sup>3</sup> Just at the cusp of the eleventh and twelfth centuries, beginning in Cîteaux (or Cistells, or Cister), they established what they called ‘The New Monastery’. It was a different kind of monastic experience—essentially Benedictine—which, in a comparatively short time, structured itself to become a highly organized order.

These pioneers of the Cistercian adventure proposed just one thing: to follow *The Rule of Saint Benedict* more rigidly, leaving aside the inevitable modifications which had been made to it over time: such as the over-wordiness of the otherwise plain *cursus* of the Benedictine liturgy, an exaggerated tendency towards luxury, and a growing involvement in the affairs of the secular world. Robert, Alberic and Stephen simply wished to rediscover and guarantee the conditions in

which it was possible to follow the ideals of the Benedictine Rule to its full: to grow closer to God in a communal lifestyle, based upon prayer, study and work.

§13. The spiritual values of the Cistercian communities --their isolation from the secular, and their tranquillity and simplicity-- allowed them to develop a completely unique lifestyle, which caused them to develop a culture of their own, reflected in their art and architecture. As Frédéric Van Der Meer put it, in his *Atlas de l'Orde Cistercien* (1965):

“The white monks, rather than trying to make a compromise between worldly reality and the reality of their faith, determined themselves to abandon the world. As human beings, however, they inevitably carried something of this world with them. To reduce this to an absolute minimum --almost nothing-- and then to renounce even that in order to give themselves completely to God; *that* was what they desired.

“Just how successful were they? Their heroic act of will brought into being their architecture: one of the most extraordinary styles to have ever been known”.<sup>4</sup>

§14. The Cistercians' spiritual culture also embodies a profound conviction that all of Creation --the forests, fields and pastures, the water and the marshes-- is a God-given gift which should be passed on from generation to generation in the best possible condition: at very least as good as it was when we inherited it, and never worse.

§15. For this reason, there were Cistercian communities in many of the unpopulated valleys of Eastern Europe at that time. They developed forestry techniques which allowed them to convert woodlands into crop-fields and pastures, and to obtain timber and firewood, without causing damage to their eco-systems; thus assuring their future well-being.

Furthermore, the need for autonomy proposed in Chapter 66 of *The Rule of Saint Benedict* --the basic inspiration that so many generations had followed in order to make their monasteries beautiful and dignified places to live-- imposed a clear obligation upon the white monks. They responded by systematically searching for pleasant, well-irrigated valley zones, in order to take immediate advantage of their water. This is why, with time, the Cistercian monasteries developed the most efficient and sustainable forestry and farming practices of their day: pioneers in this part of the world.

§16. Another key-component of Cistercian spiritual culture is its hospitality. Thanks to this, many people share our lifestyle with us, lodging in monastery hostels. They enrich us by their presence, whilst enriching themselves with our spirituality. They are our most direct contacts with the outside world, and can play an important role in the extension of our principles outside the cloister, as well as in helping to meet environmental challenges.

### **Current Problems**

§16. Experts assure us that we are currently immersed in an ecological crisis that is affecting the whole world, heightened by global climatic change, which is in turn causing the extermination of countless species. On a human scale, it supposes the extinction of entire populations and cultures, and a marked rise in worldwide poverty and hunger.

§17. In 1992, during the Rio de Janeiro Earth Summit --the biggest and most important conference ever held to debate the scale of the world's ecological crisis-- the international scientific community launched a manifesto, signed by almost two thousand eminent scientists. They included Nobel Prize winners from virtually every field, along with the presidents of the

world's most prestigious scientific institutions. Its sombre title was *A Warning to Humanity*. This warning was, amongst other things, that:

“Human beings and the natural world are on a collision course. Human activities inflict harsh and often irreversible damage on the environment and on critical resources. If not checked, many of our current practices put at serious risk the future that we wish for (...) and may so alter the living world that it will be unable to sustain life in the manner that we know. Fundamental changes are urgent if we are to avoid the collision our present course will bring about (...) A great change in our stewardship of the earth and the life on it is required, if vast human misery is to be avoided and our global home on this planet is not to be irretrievably mutilated.”<sup>5</sup>

§18. The Second Earth Summit, held in Johannesburg ten years later, demonstrated that not one of the vital negative tendencies which the previous summit had sought to combat had been checked: for all the various conventions, treaties and agreements that had been made. The world of 2002 saw more people dying of hunger, more wars, a wider gap between rich and poor, more deserts, higher levels of pollution and accelerated climatic change. Not only had the rate of extinction not slowed down, it had actually increased. In short, the world was in a substantially worse state than it had been a decade before.

§19. Furthermore, in the mid-nineties, for the first time in history, human population had grown past the point where the planet could support it, in that it was consuming more than the biosphere is capable of producing. This means that, without a complete about-turn in this unsustainable trend of growth and consumption, the entire human race will become inexorably degraded and impoverished, along with the natural world. And, as this degradation does not affect the rich nations, who continue to accumulate material wealth, the tendency will be to condemn to the most abject misery a growing proportion of mankind –our brothers and sisters-- who are born without the most basic of all human rights: the right to live with dignity.

§20. So immensely complex are these global environmental problems that it is all too easy to be panicked into a state of fatalistic despair: to the point where we no longer remember that these problems are *not* the result of some great and inevitable cosmic destiny, but that they are actually caused by human hand. They are the consequence of an infinite series of human actions –many of them unthinking, ignorant or irresponsible, certainly-- but human actions nonetheless. To truly confront these problems, it is essential not to focus merely on their effects, but to fully comprehend their origins.

§21. Such a massive planetary crisis evidently has more than one cause: a wide range of factors are to blame. These have all been analyzed from any number of viewpoints: scientific and philosophical, religious and spiritual. Many distinguished scientists, ecologists, economists and sociologists --as well as eminent philosophers and theologians-- from all cultures and faiths, have explained the reasons behind it: and all of them have done so from the perspective of their own particular expertise. The one thing that they all conclude is that this environmental crisis must be incredibly deep-rooted if it is actually affecting our global vision.

While there are most definitely economic, political and social reasons for this crisis, from a religious perspective –taking into account the existence of a hierarchy of reality levels, corresponding to a hierarchy of values-- the most striking causes are found at a spiritual level.

§22. A geographical analysis of the ecological crisis reveals a direct connection with industrialisation: therefore, its origin is undeniably European –more specifically, central and north-eastern European. These are historically Christian states, whose religious values have been undermined by the anthropocentric thinking of the Renaissance and the effects of successive

positivist philosophies, which ignore the notion of divinity in the universe, placing mankind in a void.

This situation resulted in two great revolutions during the seventeenth and eighteenth centuries, both of them uniquely European --the Scientific and the Industrial. These two revolutions westernized the world. First in Europe itself, then its colonies, and finally --during the twentieth century-- the whole planet. The unprecedented and exponential changes which they unleashed have led directly to our present environmental crisis: the population explosion, our mass consumption of planetary resources, air and water pollution, the expansion of the deserts, the extinction of innumerable species, the destruction of eco-systems, and so on.

§23. These affluent nations, in which our monasteries are found, have become highly skilled in importing both natural resources and manufactured goods from poor countries --at the lowest possible price. If that wasn't bad enough, we then export our industrial waste and outmoded, highly contaminant industries back to them. These countries are currently paying for our ecological abuse, and future generations will continue to do so: our descendents too, but theirs most acutely and directly. Our generation is evidently going to leave the world in a far, far worse state than that in which we found it.

§24. The basic cause of the worldwide ecological crisis is the uncontrolled consumerism which the wealthiest societies have adopted as the basis of our lifestyle. We simply refuse to check ourselves and face up to its consequences. We are sucked further into it by the publicity of greed, which has developed extraordinarily powerful and effective --almost subliminal-- channels of persuasion. These are inevitably based on a system of values which is diametrically opposed not only to the Christian ideal, but to the fundamental values by which all humanity can make sense of its existence.

§25. Those chiefly responsible for the global ecological crisis are not they to whom we euphemistically refer as 'the third world' or 'underdeveloped countries', even though they are where the greatest concentrations of population increase are to be found. Rather, it is in our rich, 'developed' nations where less than 20% of the world's population consumes around 80% of its natural resources. This is essentially because our societies --unlike theirs, which are often obliged to exploit resources as a simple matter of survival-- do so in order to maintain ourselves in ever more luxurious conditions, and in the pursuit of ultimately unnecessary material possessions.

### ***The response of the Magisterium***

§ 26. In recent years, the *Magisterium* of our Church has spoken out about these grave environmental problems. Its main declarations on the theme, founded on Biblical evidence, are collected in Chapter Ten of the *Church Social Doctrine Archives*; highlighting mankind's implicit relationship with the universe which surrounds him, demonstrating that this is being undermined by the current crisis, and stressing the common responsibility of all mankind to address it. We feel that this section is sufficiently important to be included unabridged in this Declaration. Even so, it seems appropriate to outline its principal affirmations at this point, as they are entirely in accord with our own:

a) The Bible teaches the basic moral criteria which are necessary to confront these environmental problems: human beings, made in the image and likeness of God the Creator, was placed in dominion over all other earthly life, with the commandment to care for and nurture it.

b) The Church's social doctrine is based on two inter-related basic principles: to turn away from our exploitative exhaustion and saturation of nature and to assure basic conditions of human dignity.

c) Current ecological problems concern the entire planet. Therefore, the responsibility to protect the environment is shared by all humanity. The *Magisterium* considers the natural world to be a collective gift, and its protection to be a common, universal responsibility.

d) In the face of these problems, it is essential to value ethical considerations more highly than technical ones, always giving priority to basic human rights.

e) The *Magisterium* invites us to consider nature as a gift of God and not a sacred being in itself; and that God provided us with our human intelligence, trusting us to choose between right or wrong.

f) These environmental problems demonstrate the need for a balance between the politics of development and that of conservation, at both a national and international level.

g) This is the moment for us to fully commit ourselves to, and involve ourselves in, the integrated development of the world's poorest regions.

h) Environmental protection requires international collaboration, with agreements sanctioned by and sanctioning human rights, all of which must carry official legal status.

i) A fundamental change is required in our collective consciousness, which will lead us to re-evaluate our current lifestyle and to modify it.

j) The environmental crisis ultimately demands a spiritual response, inspired by the profound conviction that Creation is a God-given gift, entrusted to us to be handled with loving care. In this light, we will rediscover our sense of awe of and of gratitude to The Creator.

§27. Since the publication of this archive in 2004, the *Magisterium* of Pope Benedict XVI has continued to guide the faithful on this vitally important issue. For example, in his visit to Loreto on 2 September 2007, he said:

“Follow Christ, beloved youth, and strive constantly to make a personal contribution to the building of a more just and more united society, in which all may enjoy the fruits of the earth. I know that many of you do give testimony to your living faith, as voluntary workers for the promotion of universal well-being, for peace and for justice, in all of your communities. One of the most urgent areas in which you must work is, without any doubt, the safe-guarding of Creation.

“In the hands of your generation is the future of the planet, which shows evident signs of a course of development that has not always known how to protect the delicate balance of nature. Before it is too late, you must make valiant decisions which will restore the bond between man and the earth. You must resolutely dedicate yourselves to the protection of Creation, and force an about-turn to its potentially irreversible degradation”.

In his opening message to the Seventh Ecumenical Symposium to be entitled *Religion, Science and the Environment* (Constantinople, 7 September, 2007), The Pope recalled the words of that year's World Peace Day.

“The protection and conservation of the environment, advances in its sustainable development, and --above all-- the curbing of climate change, are subjects which gravely affect the entire family of mankind. No nation or field of business can ignore the moral implications of their actions, whatever their social and economic motivations. Scientific investigation is making it increasingly clear that human activity in specific parts of the world can have effects on all of it. Ecological indifference does not have consequences only on the immediate environment, or in the surrounding region, because it always has a negative outcome for human co-existence as a whole. It devalues our basic dignity as it violates the fundamental right to live in a clean and healthy world”.

§28. We also wish to fully endorse his reflections from the 2006 Plenary Assembly of the Papal Council for Culture, the Vatican body charged with the task of maintaining the dialogue of faith with modern culture. Officially titled *La Via pulchritudinis, Cammino privilegiato di evangelizzazione e di dialogo*, it stresses the importance of the diverse spiritual values which bind us to nature, to Creation, saying:

“Many men and women see only the material aspects of nature, existing in a hollow universe, bound by the cold and immutable laws of physics. They are incapable of recognizing its intrinsic beauty, much less that of its Creator. In a society where scientific thinking has grown so powerful that it does not admit any other type of knowledge, the cosmos is reduced to nothing more than an immense silo, which mankind is exploiting to exhaustion in order to satiate his ever-increasing wants and needs”.<sup>6</sup>

“The Old Testament *Book of Wisdom* warned against this short-sighted attitude, and Saint Paul branded it ‘a proud and presumptuous sin’. (*Romans* 1, 20-23) On the contrary: Creation does have a voice. Its unprecedented and often catastrophic behaviour in recent years, every time more uncontrolled, are its cries for a new understanding of its laws and its balance. It is becoming increasingly clear to a growing number of our contemporaries that the natural world cannot be mercilessly manipulated”.

“Even so, nature is not --and can never be-- an autonomous entity: and still less should it be idolized, as it is by certain groups of neo-pagan thinkers. It should never be valued more highly than the dignity of mankind, called as its protector”.

“Nature, if it is considered carefully and correctly, is the mirror of God’s beauty. For this reason, it is vital that we pay more attention to the beauty of Creation --as human beings, and as Christians. It should not be regarded in merely ecological terms, or reduced to some kind of pantheistic ideal. There are movements (...) which do help our young people to discover the creative power of God, and which promote values of wonder and praise and thanksgiving. Both sides of the dialogue are equally important. Listen to the Voice of Creation, which speaks of the Glory of God; and listen to the Voice of God, which speaks through His Creation, and you may understand all; according to the teachings of the *First Vatican Council*”.

“Catechesis could play a valuable role in instructing children and young people to contemplate the beauty of nature, thus developing the ability to appreciate their relationship with it: to listen, in silent wonder, patiently assimilating the discovery of their harmony with the natural balance; and to meditate upon it, giving thanks and praise”.

[http://www.vatican.va/roman\\_curia/pontifical\\_councils/cultr/documents/rc\\_pc\\_cultr\\_doc\\_20060327\\_plenary-assembly\\_final-document\\_it.html](http://www.vatican.va/roman_curia/pontifical_councils/cultr/documents/rc_pc_cultr_doc_20060327_plenary-assembly_final-document_it.html)



## Part Two

§29. Fully aware of our jurisdictional rights, of the objectives of our Congregation and the basic rules which guide our lifestyle; in the knowledge of the teachings of the holy scriptures, of the *Magisterium* and of our monastic tradition; and acutely conscious of the urgency of the ecological crisis which the Earth is suffering, which poses so a grave threat to human survival on the planet that it could ultimately destroy this divine gift, we have unreservedly elected to address it within our lives as monks and nuns. Our monasteries and convents are undergoing an ecological restructuring, using resources and energy in such a way as to minimize any possible negative effects, making changes that our successors will continue to improve, in all of the following areas.

### *The Air*

§30. As stated in the grim *World Scientists' Warning to Humanity*, issued in 1992:

“Stratospheric ozone depletion threatens us with enhanced ultraviolet radiation at the earth's surface, which can be damaging or lethal to many life forms. Air pollution near ground level, and acid precipitation, are already causing widespread injury to humans, forests and crops.”<sup>7</sup>

§31. Without air, we cannot breathe: the most basic necessity of our lives. We can see the evidence of atmospheric pollution on our monastery buildings. For this reason, we propose to reduce our emission of CO<sub>2</sub> and other toxic gases, and to avoid the consumption of petrol-based fuels and aerosol products which damage the ozone layer. So far as possible, we will limit our use of the motor car, trying to make the most efficient use of our outings, using public transport. We also pledge to reduce the negative effects on the atmosphere which products used on our lands may cause, whether administered by us or by other parties. Where any form of treatment is required, it will be done via environmentally friendly methods.

§32. Monasteries are peaceful places, filled with the silence and serenity needed to grow closer to God. This very firmly opposes us to the noise and light pollution so manifest in modern life. We consider it to be a major priority in and around our monasteries, as in all urban areas.

### *Water*

§33. Once again, we refer to the words of the *World Scientists' Warning to Humanity*:

“Heedless exploitation of depletable ground water supplies endangers food production and other essential human systems. Heavy demands on the world's surface waters have resulted in serious shortages in some 80 countries, containing 40% of the world's population. Pollution of rivers, lakes, and ground water further limits the supply.

“Destructive pressure on the oceans is severe, particularly in the coastal regions which produce most of the world's food fish. The total marine catch is now at or above the estimated maximum sustainable yield. Some fisheries have already shown signs of collapse. Rivers carrying heavy burdens of eroded soil into the seas also carry industrial, municipal, agricultural and livestock waste -- some of it toxic”.<sup>8</sup>

§34. Cistercian tradition demonstrates that our monasteries were founded in areas capable of supporting cultivation, close to water sources which could be used in three ways; domestic, liturgical and productive. Water channels had to be designed and constructed, in order to drive

the oil presses and flour mills and to power the forge hammer. Similarly, its channelling and piping allowed the monks to wash after work, to sluice out the latrines and kitchen-waste, and to supply the fish farms which provided a staple part of their diet. Once blessed, it could also be used as Holy Water.

Of course, the proximity of a spring --or some other source of fresh drinking water-- was the first priority. The planning of any new monastery always remained provisional until satisfactory solutions to these 'water needs' had been found. The width of the chosen valley, the direction of the river flow, and its volume and velocity, were all key-factors. Whilst water is necessary to live, it can also make life impossible in areas prone to flooding or where there are marked seasonal changes in its levels.

Only once the entire zone had been meticulously investigated according to these criteria would final building work be commenced. The definitive location was determined by the proximity of natural waterways, or the possibility of constructing artificial networks to carry it into the monastery grounds. Lock-gates and sluices were used to regulate changes in the flow of the contributory rivers and streams, and to create reservoirs which would guarantee the availability of water. Water-management was one of the most important factors in the planning of the monasteries. So tightly interrelated is water with the Cistercian lifestyle that its influence can be found in the names of many of our monasteries.

§35. Clean, safe, fresh water is becoming increasingly scarce as a vital resource. Decreasing rainfall and rising pollution are forcing us to realize just how important it is. To this end, we are re-evaluating our relationship with it, striving to minimize our domestic consumption. We plan to construct new collection systems which will allow us to use rain water for the irrigation of our crop fields and orchards, and to recycle our dirty water through purification systems and filtration pools. We similarly intend to curtail the contamination of the surface and underground water sources around us, eliminating the use of non-biodegradable cleaning products, detergents and agricultural products.

### ***The soil, commercial activity and waste products***

§36. In their warning, the scientific community went on to point out that:

“Loss of soil productivity, which is causing extensive land abandonment, is a widespread by-product of current practices in agriculture and animal husbandry. Since 1945, 11 per cent of the earth's vegetated surface has been degraded -- an area larger than India and China combined -- and per capita food production in many parts of the world is decreasing”.<sup>9</sup>

§37. We have seen that the founding fathers of the monasteries dedicated themselves first and foremost to the organisation of the agricultural land within their boundaries, establishing well-designed crop fields and harvesting their produce. The monastic communities worked the land using animals and hand tools. Their first priorities were always to cultivate as much barren land as possible, and to sanify the swamps and marshlands which were sources of numerous epidemics.

§38. Despite the fact that the majority of the current population of monks and nuns who form our Congregation come from urban backgrounds, generally ignorant of rural life, we feel that it is necessary to return our attention to the organic and environmentally sustainable cultivation of at least some of our lands. In doing so, not only will we re-attune ourselves to the beauty of the cycles of nature, we will succeed in addressing another important issue: the provision of a self-

sufficient source of food for ourselves and our guests, thus helping us to minimize the need to shop, and the repercussions which this has.

§39. Several of the monasteries within our Congregation are to be found in an almost constant state of restoration and rebuilding. At times, this work involves earth moving. For this reason, we have decided that, from now onwards, the fertile layers of topsoil will be set aside for agricultural or horticultural use, before the mechanical work is begun.

§40. In accordance with the natural cycle, we also pledge to separate the amount of rubbish which we produce; aiming to reduce non-organic residue to an absolute minimum, and to convert organic waste into compost which can be used to fertilize our gardens and orchards. We are very well aware that, in order to minimize our non-organic residue, we must also strive to reduce the main sources by avoiding the use of products with excessive and unnecessary packaging and wrapping. Moreover, we need to be more conscious of the cycle of origin of the goods which we do purchase, seeking to establish fair and responsible trade. At the same time, we will endeavour to ensure that the products available in our own shops (postcards, souvenirs and foodstuffs, for example) also meet these requirements of ‘conscientious consumption’.

### ***Forests and the diversity of species.***

§41. From the 1994 *World Scientist’s Warning* once again:

“Tropical rain forests, as well as tropical and temperate dry forests, are being destroyed rapidly. At present rates, some critical forest types will be gone in a few years, and most of the tropical rain forest will be gone before the end of the next century. With them will go large numbers of plant and animal species.

“The irreversible loss of species, which by 2100 may reach one-third of all species now living, is especially serious. We are losing the potential they hold for providing medicinal and other benefits, and the contribution that genetic diversity of life forms gives to the robustness of the world’s biological systems and to the astonishing beauty of the earth itself. Much of this damage is irreversible on a scale of centuries, or permanent.”<sup>10</sup>

§42. We know that our predecessors regarded the forests which surrounded them as a rich source of much-needed resources, but they always strove to treat them with great respect, ensuring that they would be there for the use of subsequent generations. From the forests came the majority of the basic materials which they needed simply to live, as well as for the construction of the monasteries. Almost every part of a tree would be used in some way: from the wood, to the seeds, to the roots. Leaves and bark were used to make lotions, balms and medicines. Nuts and seeds were gathered to be made into paper and inks, and were also used as charcoal fuel. Everything was carried from the forests using animals, carts and hand-carts, which caused very little damage and erosion to the soil.

§43. Nowadays, although our monasteries are surrounded by forest or woodland, they actually own or control very little of it. We believe that it is our duty, where suitable conditions allow us to do so, to help to stimulate a dialogue between the public administrators and private owners of the forests around us, so ensuring that they continue to be correctly managed: preserving and protecting them. We intend to offer the benefit of our long experience and great knowledge in order to support the appropriate authorities: always stressing the need to incorporate spiritual, cultural, symbolic and religious values into conservation strategy, as they have always been intrinsically linked. We are convinced that, in this way, we can effectively protect the quality of rural and woodland landscapes around our monasteries, consolidating their ecological integrity, enhancing their silence and their splendour.

§44. In a similar manner, we also pledge to support the *Delos Initiative* in every way possible. This project was born from the efforts of a group set up by World Commission on Protected Areas (WCPA), part of the International Union for Conservation of Nature and Natural Resources (IUCN). Its brief was to consider the cultural and spiritual value of the regions under WCPA protection. This group works tirelessly –and highly efficiently-- in helping to promote these values: subtle and intangible, but nevertheless inextricably related, into political initiatives pertaining to the conservation of protected areas.

### ***Energy***

§45. The vast majority of our current environmental and social problems –from pollution and climatic change, through to wars and military invasions—stem from our generalized use of harmful fossil fuels, which our society consumes on a massive scale. Our dependence on energy production in order to maintain our present lifestyle is immense: and completely unsustainable, even in the mid-term. While we clearly realise that electric and thermal energy can never be completely abandoned, we recognise the need to reconsider the sources used to provide it.

§46. For this reason, we propose to systematically replace our use of these damaging fossil fuels with alternative sources of electrical energy such as solar power, wind farms and geo-thermal energy, which are far cleaner and more sustainable. More immediately, it is clear that we also need to reduce our present rates of consumption via a more efficient use of energy. This involves the revision of our existing heating and refrigeration systems, ensuring that they function as efficiently and safely as possible, the replacement of traditional light bulbs with energy-saving models or solar lamps, and so on.

At the same time, so far as it is possible, we also intend to install solar thermal energy collectors for the heating of our water, and photovoltaic arrays, which will feed power into to the national grid. Our aim is to generate at least as much energy as we consume: if we can produce more, so much the better. Similarly, we are committed to the installation of non-contaminating, low-energy systems in restored parts of our existing buildings, as in any new parts of our monastery complexes: those currently in progress, or any which may be constructed in the future.

### **Conclusions**

§47. With this Declaration, our intentions –which we now need to decide precisely how to put into practice—relate directly to the responses given in the *Warning to Mankind* to the question ‘What must be done, in the face of these environmental challenges?’

First and foremost, “We must bring environmentally damaging activities under control to restore and protect the integrity of the Earth's systems on which we are so dependent.

“We must, for example, move away from fossil fuels to more benign, inexhaustible energy sources to cut greenhouse gas emissions and the pollution of our air and water. Priority must be given to the development of energy sources matched to Third World needs -- small-scale and relatively easy to implement. We must halt deforestation, injury to and loss of agricultural land, and the loss of terrestrial and marine plant and animal species”.

Secondly, “We must manage more effectively the resources crucial to human welfare. We must give high priority to efficient use of energy, water, and other materials, including expansion of conservation and recycling”<sup>11, 12</sup>.

In this way, we wish to become more open to the messages being issued by the signals which the natural world is currently manifesting: listening to them humbly and simply.

§48. By this same Declaration, we similarly desire to faithfully follow the *Magisterium* of The Roman Catholic Church, which takes a very serious line on the global environmental crisis, and responds to it through its faith in the resurrected Christ: Lord of all History and King of the Universe. Its teaching can be summarized in the words of this declaration on ‘environmental ethics’, delivered by Pope John Paul II in 2002, recalling the ecumenical patriarchy of Bartholomew I:

“This is not simply an economic or technological problem; it is a moral and spiritual one. We will only be capable of finding economic and technological solutions to it if we can realize within ourselves a radical change of heart, which will lead to a change in our lifestyle, which is governed by unsustainable levels of production and consumption (...) It is still not too late. God’s Creation has incredible powers of recuperation. In the space of just a single generation, we could assure the future of the Earth for our sons and daughters. May this generation begin now, with the help and blessing of The Lord.

§49. This Declaration also serves as a reminder –to ourselves, above all—that we, as Cistercian monks and nuns, are particularly well-prepared by our calling and our tradition to realize this change of heart proposed by the *Magisterium*, and so evidently called for by the signs of our times. The basic principles of our lives, by which we strive to follow Christ, provide the optimum conditions by which this change can be made. This is to say, that in dedicating ourselves to work for this change, we remain faithful to the very roots of our Benedictine Cistercian monastic tradition, which has always been founded upon a meticulous attention to the smallest of details: whether this be in our liturgical life, as ordained by the Psalms, orations and scriptures which structure our holy calling; or in our respectful relationship with the Earth, with its water, and with the whole of Creation. In short, our tradition clearly demonstrates that attitudes of respect and reverence are equally important in both our spiritual lives and our material existence. This can be seen, for example, in this brief extract from *The Rule of Saint Benedict*:

“You should consider all of the objects and goods to be found within the monastery as though they were the sacred chalices of the altar”<sup>13</sup>

§50. Our *Declaration* is intended to provide a contemporary model for all those men and women of the twenty-first century who wish to dedicate their lives to a deeper understanding of their faith. It proposes very practical means by which environmental problems can be confronted: problems that, in part, they feel responsible for --and which will have direct repercussions on the lives of all the inhabitants of our planet for generations to come. It is our sincere hope that, in working for the well-being of the monks and nuns of the future, in some way we will help to make the world a better place to live in for all men and women.

## Appendix

### EXTRACTS FROM *THE SOCIAL DOCTRINE OF THE CHURCH*, Chapter Sixteen: “The Protection of the Environment”

#### 1. BIBLICAL CONTEXT

**451** *A living experience of the divine presence has been the basis of the faith of God’s people throughout history. “We were the slaves of the Pharaoh of Egypt, and with his mighty hand the Lord delivered us from that land”. (Deuteronomy 6:21) By considering the events of history, we can gain an understanding of the past and, in so doing, there discover the very roots of God’s work.*

“My father was a wandering Aramean” (Deuteronomy 26:5): and yet God was able to tell His people “I took your father Abraham from the land beyond the river”. (Joshua 24:3) Such historical reflection permits us to contemplate the future with confidence, by virtue of God’s promise and His union with us, which is constantly renewed.

*The living faith of the Israelites, in the space and time of this world, led them to consider it not as a hostile environment, or an evil from which they wished to escape. Rather, they regarded it as a gift from God –the place in which He intended mankind to labour, trusting in their responsible management of it.*

Nature, the product of His divine Creation, is not to be regarded as part of its peril. God, in His making of all things, looked upon each and every one of them, “and He saw that it was good”. (Genesis 1: 4, 10, 12, 18, 21, 25) Contemplating the whole of His Creation and seeing that it was “very good” (Genesis 1:31), The Creator placed man amongst it. Of all living things, He chose to make only the man and the woman “in His own image”. (Genesis 1:27) The Lord entrusted them with the responsibility for all of His Creation, to protect its harmony and to oversee its development. (Genesis 1:26-30) This special relationship with God explains the privileged position of the human couple within the order of Creation.

**452** Mankind’s relationship with the world is part of the definition of our human identity. It is a relationship which stems directly from the still deeper connection between God and Man. The Lord desires that human beings should act as His intermediary. Only through a dialogue with Him can we, the human animal, realize our true identity. In doing so, we will be provided with the inspiration to plan for the future of the world as a garden, given by God for us to tend and to nurture. (Gen 2:15)

Not even the emergence of Sin removed this obligation, although it caused the noble task to become a source of pain and suffering. (Genesis 3:17-19) *The whole of Creation was lauded in the prayers of the Israelites: “How many are your works, O Lord! In your wisdom you made them all”. (Psalm 104:24)*

We understand Salvation as a new form of Creation, which re-establishes the harmony and capacity for growth which was compromised by Sin. “I will create a new Heaven and a new Earth”, says The Lord (Isaiah 65:17) “And the desert shall become a fertile field [...] and righteousness shall dwell in the field [...] and my people shall live in peaceful dwelling-places”. (Isaiah 32:15-18)

**453** *This definitive Salvation, which God offers to all of humanity through His only Son, is not to be attained outside of this world. In spite of the damage which Sin has caused it, the world is destined to experience a radical purification (2 Peter 3:10) from which it will emerge renewed (Isaiah 65:17 and 66:22, also Revelation 21:1) and will finally come to be a place “where justice shall reign” (2 Peter 3:13)*

*Throughout the course of His public ministry, Jesus also stressed the value and importance of the natural world. Not only did He frequently choose to include many astute references to nature in his parables, He also demonstrated his mastery over it. For example, in the calming of the storm, The Lord caused it to cede to His great redeeming power. (Matthew 14:22-23, Mark 6:45-52, John 6:16-21)*

He instructed His disciples to be keen observers of the natural world and its seasons, and also observers of mankind; doing so with the confidence of children who know that they will never be abandoned by their provident Father. (Luke 11:11-13) Far from being a slave to the things of the world, a disciple of Christ must learn how to share them, in fellowship and brotherhood. (Luke 16:9-13)

**454** *The story of Jesus Christ’s earthly existence culminated in the events of the first Easter, during which nature itself played a part in the dramatic rejection of the Son of God, and the subsequent victory of His resurrection. (Matthew 27:45 and 51 and 28:2) In crossing the boundary of death by his glorious resurrection, Jesus established a new world order which rules all things. (1 Corinthians 15:20-28) At the same time, He re-established the order of the relationship which had been destroyed by Sin.*

The imbalances in mankind’s relationship with nature can be corrected by the conviction that Jesus has reconciled man and the world with God, meaning that any person who is conscious of His divine love may regain this lost sense of peace. “Therefore if any man be in Christ, he is a new creature: old things are passed away; all things are become new”. (2 Corinthians 5:17) Nature, which had been created by The Word, has been reconciled with God through the actions of The Word Made Flesh, and peace has been restored. (Colossians 1:15-20)

**455** *It was not only an internal healing which was newly given to mankind, but rather a bodily purging by the redeeming power of Christ. The whole of Creation was included in the renewal which flowed out from His Passion. Albeit groaning with the pain of childbirth, (Romans 8:19-23) it will bring into being this “new Heaven and new Earth” (Revelation 21:1), the gift of the end of time and the completion of its salvation.*

Until this comes to pass, nothing and nobody is exempted from salvation. Whatever their position in life may be, Christians are called to loyally serve Christ and to live by the Holy Spirit, which will guide them in love. This is the beginning of a new life, which will redirect mankind and the world to their original destiny: “the world, or life or death, the present or the future: all are yours, and you are of Christ, and Christ is of God”. (1 Corinthians 3:22-23)

## **2. MANKIND AND THE MATERIAL UNIVERSE**

**456** *This Biblical vision inspires the behaviour of Christians in relation to their use of the Earth, and also in their development of science and technology. The documentation of the Vatican II Council, published in 1966, affirmed that: “Man rightly judges that by his intellect he is superior to the material universe; for he shares in the light of the divine mind”.<sup>13</sup> The Fathers of the Council similarly acknowledged that “by relentlessly employing his talents throughout the ages, man has indeed made great progress in the practical sciences, as in technology and the liberal*

arts”.<sup>14</sup> Modern man, they concluded, “especially with the help of science and technology, has extended his mastery over nearly the whole of nature, and he continues to do so”.<sup>15</sup>

Vatican II testifies that man was “created in the image of God, and commanded to govern the world in justice and sanctity, submitting the Earth and all that is within it in reference to God Himself and to all of the universe, recognizing Him as the Creator of all things; for in the submission of all things to man, the name of God becomes great throughout all the Earth”.<sup>16</sup> The Council teaches that “human action –individual and collective— has resulted in this enormous effort by which man has sought better conditions of life throughout the centuries, considering that this in itself is part of God’s great plan”.<sup>17</sup>

**457** *The results of scientific and technological progress are, in themselves, positive.*<sup>18</sup> As the Council put it, Christians “are in no way opposed to that which man has achieved by his ingenuity and God-given strength; for, as rational creatures, they do not consider themselves to be the rivals of the Creator. On the contrary, they are generally convinced that great human achievement is a reflection of God’s greatness and the fruit of His ineffable design”.<sup>19</sup>

The Fathers of the Council similarly drew attention to the fact that, as mankind continues to realize its full potential, it also becomes more aware of its responsibilities towards all individuals and the human community as a whole.<sup>20</sup> In accordance with God’s great plan, and with His will, all human activity should be dedicated to its betterment, as Pope John Paul II stated during his visit to the Mercy Maternity Hospital in Melbourne in November 1986.<sup>21</sup>

In this light, the *Magisterium* has demonstrated on numerous occasions that The Roman Catholic Church is in no way opposed to progress. In his address to a scientific gathering at the United Nations University in Hiroshima in 1981, The Pope affirmed that the Church considers “science and technology to be the marvellous product of human creativity; a gift from God which offers us the opportunity to take full advantage of its potentially wonderful benefits”.<sup>22</sup> For the same reason, speaking to the workers of the Olivetti Offices in Ivrea, Italy, in 1990, he confirmed that: “As we believe in a God who considers all of His Creation to be ‘good’, we delight in the technical and economic progress which man has accomplished by means of his intelligence”.<sup>23</sup>

**458** *The opinions of the Magisterium concerning science and technology in general are equally relevant to their agricultural and environmental applications.* In a speech to the Pontifical Academy of Science in 1981, John Paul II stressed the fact that The Church highly values “the advantages which we have gained –and which are still to be gained—from the study and application of molecular biology, complemented by other disciplines such as genetics, and their practical applications in agricultural and industrial processes”.<sup>24</sup> In effect, as he pointed out in his address to the Bicentennial Congress of the National Academy for the Sciences in 1982: “Technology, if prudently applied, could constitute a precious, practical solution to the great problems of the world, beginning with famine and sickness, through the development of stronger, more resistant crop plants and the production of much-needed medicines”.<sup>25</sup>

Nevertheless, this notion of ‘prudent application’ is of prime importance. In the aforementioned Hiroshima address, The Pope reiterated that, “we are acutely aware that this potential is not neutral: it can be applied to lead to the progress of mankind –or to its degradation”.<sup>26</sup> For this reason, as he stated in his Ivrea speech, “we must maintain a prudent attitude, scrupulously analyzing the nature of the technological methods which we employ, and the outcomes which they produce”.<sup>27</sup> This means, as he told the Melbourne Victorian Racing Club in 1986, that the scientific community must “truly apply their research and its technical applications to serve humanity”.<sup>28</sup> Or, as he put it to the Pontifical Academy of Science, they should carry out their work being ever mindful of “those moral values and principles which respect and facilitate the realization of human dignity”.<sup>29</sup>



**459** *The fundamental consideration in the application of any form of scientific and technological development is an intrinsic respect for mankind, together with consideration for all other living creatures.* Above all, when any type of change is contemplated, “we must take into account the specific characteristics of all living things, together with their inter-relationship within the natural order”, as indicated in the encyclical epistle *Sollicitudo rei socialis*, written by John Paul II in 1990.<sup>30</sup>

In this sense, the tremendous possibilities which are presented by biological research also carry grave concerns, given that “man is still incapable of calculating the full extent of the effects of his indiscriminate genetic manipulation and ill-considered development of new plant strains and new forms of animal life: not to mention his unacceptable tampering with the very origins of human life”, as he warned in his message for World Peace Day the same year.<sup>31</sup> He went on to say that: “It is now realized that the application of some of these discoveries, both in industry and in agriculture, produces long-term negative effects. This has made it blatantly evident that any type of intervention in a particular aspect of the eco-system must take into account its possible consequences on the environment as a whole, and –generally speaking– for the well-being of our future generations”.<sup>32</sup>

**460** In his 1991 encyclical epistle, entitled *Centesimus annus*, John Paul II also emphasized that mankind must never forget that “the capacity to transform and, in a way, create the world through its efforts [...] is always exercised using the original basis of all things, which were given by God”.<sup>33</sup> Continuing, he wrote “we must not exploit the Earth in an arbitrary manner; dominating it with no respect for God’s will, as though its unique form and overall destiny were not God-given. Whilst mankind certainly forms a part of this destiny, we must not betray His trust in us”.<sup>34</sup> When we do behave in such a manner, he went on, “rather than realizing our role of collaborating with God in the work of Creation, we try to substitute Him, resulting in the upheaval of the natural world, which we threaten rather than govern”.<sup>35</sup>

If we interact with the environment without abusing and damaging it, and “our interventions are not to modify nature, but to help it to develop as was intended by God’s will in its creation, our investigations and actions will remain faithful to His design. God desires that man should be the King of Creation”, as he told the General Assembly of the World Medical Association in 1983.<sup>36</sup> After all, it is God Himself who offers us the honour of co-operating with Him, using all of our innate intelligence to assist in the work of His Creation.

### **3. THE CRISIS IN MAN’S RELATIONSHIP WITH THE ENVIRONMENT**

**461** *The messages to be found both in The Bible and in the doctrines of The Church provide an essential point of reference in evaluating the evident problems in man’s relationship with the natural world.*<sup>37</sup>

The fundamental cause of all of these problems is clearly rooted in mankind’s presumptuous desire to dominate and control everything. No kind of moral consideration is exercised in the execution of our activities to this end. *This tendency to mindlessly and indiscriminately exploit the resources of Creation has long-standing historical and cultural precedents.*<sup>38</sup>

As John Paul II advised the 1997 Congress on Health and the Environment, “The modern age has given man a still greater capacity to intervene and to transform. The scale of our conquest and exploitation of resources has become widespread and pervasive, and has now reached the point where it threatens the environment’s capacity to maintain either us or itself. The environment as a ‘resource’ is now in danger of losing its hospitality as a ‘home’. By the effects of the potent means of transforming it which our technological civilisation has developed, it sometimes appears that the human-natural balance has reached breaking point”.<sup>39</sup>

**462** *The natural world appears to have become little more than a plaything in the hands of mankind, which is constantly being toyed with –especially by the applications of technology. This compulsion to manipulate it is based upon our assumption (an entirely inaccurate one) that there are unlimited quantities of energy and resources at our disposal, and that the natural order is capable of restoring itself in the face of our interventions, and regenerating itself to compensate for their damaging effects. There is a widespread tendency to regard the natural world in narrow, mechanistic terms, which has resulted directly in the development of our consumerist habits. The priority given to ‘doing’ and to ‘having’, rather than simply ‘being’, is the basis of the gravest forms of human alienation.*

As John Paul II wrote in the 2003 *Sollicitudo rei socialis*: “*This pattern of behaviour is not the result of scientific and technological research, but rather of the pervading techno-scientific ideology which underlies it*”.<sup>40</sup> All of the progress which has been made in these fields does not remove the need to look beyond their purely material considerations. Neither do such developments need to result in our secularization, bordering on the nihilistic, if they are carried out respecting their transcendent sense, related to the nature of mankind and of all Creation.

**463** *To correctly interpret and understand the world around us, we must not hold to the utilitarian concept that it is nothing more than an object for us to manipulate and exploit; yet neither should we give it such status that it becomes more important than basic human dignity.*<sup>41</sup>

When the latter case occurs, it grows to a point where nature, and the whole planet, becomes deified. This is clearly evident in the way that certain ecological groups pressure to obtain the institutional and international acceptance of their values.<sup>42</sup> The *Magisterium* has opposed itself to such an ‘eco-centric’ or ‘bio-centric’ world-view because “it proposes to eliminate the ontological and axiological differences which exist between man and other living creatures; regarding the biosphere as an entity in its own right, with precedence above all others. In considering in this manner that all forms of life have an equal level of ‘dignity’, the superior status of human beings --and their degree of responsibility—goes unrecognized”.<sup>43</sup>

**464** *Such a vision of man and all things, unlinked to any concept of their transcendent nature, has led to a complete rejection of the notion of Creation, in its assumption that humanity and the rest of the natural world are entirely independent of one another.*

In this way, the ties that bind the world to God have been severed. This rupture has resulted in man’s indiscriminate uprooting of the Earth and, what is more, in the degradation of his very identity. Human beings have become estranged from the environment which surrounds them.

“The relationship which mankind maintains with God is that which determines the relationship it has with itself, and with the world in which it lives. This is why Christian culture has always considered the creatures of the world to be part of a God-given gift, to be tended and nurtured with a humble sense of gratitude to the Creator. Benedictine and Franciscan spirituality have borne witness to this parallel relationship between mankind and the rest of Creation in a very special way, by virtue of their fundamental attitude of respect for every aspect of the world in which they exist”.<sup>44</sup> The profound connection which exists between environmental ecology and ‘human ecology’ can not be emphasized highly enough.<sup>45</sup>

**465** *The Magisterium highlights the responsibility which human beings have to maintain the environment sound and intact for all people.*

“If modern man is capable of integrating a clearly defined ethical dimension into his new scientific capabilities, he will be successful in promoting the concept of the environment as his home, and as a resource which benefits all men. He will successfully eliminate the factors which

contaminate it, assuring healthy and hygienic conditions for everyone on the planet, whether they live in small settlements or vast communities.

“The technologies which cause pollution can also be applied to decontaminate, and inequalities in product distribution can be balanced --if moral values which recognize and promote human rights and dignity are applied: not only for the current generation, but for those which are to come”.<sup>46</sup>

#### 4. OUR MUTUAL RESPONSIBILITY

##### a) The environment: a collective resource

**466** As John Paul II observed in the 1991 *Centisimus annus: Caring for the natural environment presents a challenge to all of humanity: in essence, it is the collective and universal obligation to respect a resource which we all share*.<sup>47</sup> As he stressed in his *Sollicitudo rei socialis* (1988), every single person has a common responsibility to oppose and to impede “the punishing utilization of the diverse categories of existence; be they living entities or inanimate forms – animals, plants or natural resources—in an indiscriminate manner in order to meet his own requirements”.<sup>48</sup>

This sense of responsibility is one which must continue to be developed in the face of the global extent of the current ecological crisis. Action is required on a global level if it is to be confronted, given that every component of the natural world is inter-related and interdependent within the universal order established by the Creator. As the *Sollicitudo* goes on to say, “We must be particularly careful to take into account the nature of every being, and their mutual relationship within the ordered system that is the cosmos”.<sup>49</sup>

This perspective becomes still more significant when we take into account *the environmental value of its bio-diversity*, in the context of the intrinsic connections which exist between and unify all of its eco-systems. These must be treated with the utmost responsibility in order to protect them, as they constitute an extraordinary enrichment to the life of all humanity. In this sense, everybody needs to be acutely aware of the importance of the Amazon region, “one of the most highly-valued locations on the entire planet, in terms of the diversity of species which it contains”.<sup>50</sup>

In his homily at Val Visende, celebrating Saint Gualbert’s Feast Day in 1987, the Holy Father affirmed that: “The forests contribute to the maintenance of the balance of nature, which is indispensable for all forms of life”.<sup>51</sup> Their destruction, often carried out by their sickeningly indiscriminate incineration, accelerates the process of desertification: with dangerous consequences for the planet’s water reserves; compromising the life of many indigenous populations and the well-being of their future generations. Everybody, individually and through our institutions, must share the obligation to protect our forest patrimony and, when necessary, implement and wholeheartedly support initiatives which will lead to their reforestation.

**467** This responsibility for the environment, which is the shared inheritance of the human race as a whole, does not involve only the consideration of our present needs, but also those of the future. As early as 1967, Pope Paul VI observed in his *Populorum progressio* epistle that: “As the heirs of our past generations and beneficiaries of the work of our contemporaries, we have an obligation to all people, and we cannot feign disinterest for those who will follow us in the ever-widening circle of the human family. Our mutual, universal interdependence –a fact, and also a great gift—is also a great responsibility”.<sup>52</sup>

John Paul II reiterated this point in his 1991 *Centesimus annus*, saying: “It is an obligation which the present generation carries for those of the future”.<sup>53</sup> This obligation and responsibility lies with every one of the world’s states, and with the international community as a whole.

**468** *Our responsibility for the environment must also be translated in judicial terms.* There is a pressing need for the international community to elaborate standardized regulations, in such a way as to ensure that its component states conduct the varying activities which produce provoke negative effects more efficiently, thus assuring the integrity of their eco-systems and preventing the possibility of accidents. John Paul II made this very clear in his 1999 World Peace Day message: “Every state, within its territorial limits, bears the responsibility for the prevention of atmospheric and biospheric degradation, scrupulously controlling –amongst other things-- the effects of their new technological or scientific discoveries, thus guaranteeing that their citizens are exposed neither to contaminating agents, nor to toxic residues”.<sup>54</sup>

The jurisdictional measures which will uphold “the right to a safe and healthy environment”, as he termed it in an address to the Strasbourg Court and Commission for Human Rights in 1988,<sup>55</sup> will be the fruit of a gradual process of elaboration. It will be based upon public opinion, concerned with controlling the use of the resources of Creation in a way that benefits the common good, and with a shared desire to sanction those who cause its contamination. Judicial rulings, however, are not a sufficient measure in themselves, as highlighted in the Peace Day message:<sup>56</sup> alongside them, there is the necessity to develop a stronger and more mature sense of responsibility, together with a fundamental change in our attitudes and lifestyle.

**469** *The authorities who are expected to deal with these health risks and environmental hazards sometimes find themselves faced with insufficient and/or contradictory scientific data on which to base their decisions. In such cases, their most viable course of action would be to evaluate situations using the ‘principle of precaution’, which is not a hard and fast rule, but rather a guideline to be applied in conditions of uncertainty.*

It demonstrates the need for provisional rulings to be made, which can be subsequently modified, according to any new knowledge and evidence which may later come to light. Such decisions should complement the existing measures applied to other types of risk. Prudent politics, based upon this precaution principle, requires that any decisions made concerning these hazards should be balanced with the possible benefits of any alternative strategies that may be available: including a policy of non-intervention.

Intrinsically related to this attitude of precaution is the necessity to tirelessly seek a deeper understanding of such situations, being acutely aware that science alone cannot provide quick and easy answers to the elimination of risk. The uncertainty of these situations, and the provisional nature of decisions related to them, call for openness and clarity in the policy-making process.

**470** *Economic development programmes must take into careful account “the need to respect the integrity and rhythms of nature”, as stated by John Paul II in his 1988 Sollicitudo rei socialis.<sup>57</sup> It is evident that natural resources are limited, and that some cannot be renewed.*

In the same epistle, The Pope observed that the rate at which some of these resources are currently being exploited seriously compromises their availability, both now and in the future.<sup>58</sup> The solution to the ecological crisis requires that economic activity is conducted with the utmost respect for the environment, balancing the need for development with the need for protection. *All economic activity which is concerned with the use of natural resources must also concern itself with the protection of the environment, taking into account the cost on it, which must be*

considered as “a key factor of the cost of economic activity”, as John Paul II emphasized while addressing the UN Food and Agriculture Organization in 1989.<sup>59</sup>

In this context, we must carefully consider the connections between human activity and climatic change, which, given their extreme complexity, need to be constantly and vigilantly observed from scientific, political and judicial perspectives: at a national and international level. The climate is a resource which must be protected, and this requires that both the propagators and the consumers of industrial activity must learn to conduct themselves in a far more responsible manner than they do at present, as The Pope told the Pontifical Academy of Science in 1987.<sup>60</sup> *An economy which is respectful of the environment will not have the sole objective of maximizing profits, because environmental protection cannot be guaranteed according to financial calculations of costs and gains.* The environment is not a good which can be successfully promoted and defended according to market strategies, as pointed out in the 1991 *Centesimus annus*.<sup>61</sup>

All nations, but above all the developed ones, must regard the reconsideration of the manner in which they use natural resources as an urgent priority. Incentives need to be given for research into new ways of effectively reducing the impact of production and consumption upon the environment. Most pressing, as The Pope stressed in his plenary address to the 1994 Conference of the Papal Academy for the Sciences, is the consideration of the complex problems related to energy resources.<sup>62</sup>

Non-renewable energy sources, which are heavily utilized both in highly-industrialized societies and those which have become recently industrialized, must be made available to benefit mankind as a whole. Speaking to an international symposium on physics in 1992, The Pope noted that, from a moral point of view --marked by the equality and unity between different generations-- it is also very necessary that the scientific community continues to investigate and develop the use of new energy sources.<sup>63</sup> There is similarly a need to improve the safety of nuclear energy production.

The use of energy, so closely linked to the question of human development within the environment, demands that those who hold political or economic responsibility, nationally and internationally, must be enlightened in guiding the ongoing quest to meet the common good of all.

**471** *Very special attention should be paid to the relationship which indigenous populations have with their lands and resources, which expresses the fundamental basis of their identities,* as John Paul II said in Manaus in 1980, addressing the indigenous tribes of Amazonia.<sup>64</sup>

Many native people have lost --or are at risk of losing-- the lands in which they live, in order to benefit powerful agro-industrial interests;<sup>65</sup> or they are forced to assimilate themselves in urban environments.

These lands are intrinsically tied to very sense of existence of indigenous populations,<sup>66</sup> and their rights must be staunchly upheld.<sup>67</sup> Speaking to Canadian natives, he applauded their example of living in harmony with their environment; their knowledge of it, and protective attitude towards it. Similarly, in Ecuador, he highlighted the ‘extraordinary experience’ of these peoples as an irreplaceable enrichment for the whole of humanity, in peril of being destroyed along with the environments which had formed their basis.<sup>68</sup>

## **b) The use of Biotechnologies**

**472** *In recent years, the issue of biotechnological innovations has been thrust to the fore, related to their applications in agriculture, zootechnics, medicine and environmental protection. The new possibilities which modern biological and biogenetic techniques can offer present us with hope and enthusiasm on the one hand; but, on the other, with alarm and hostility.*

The uses of these biotechnologies and their moral implications, their consequences on human health, and their environmental and economic impact, form the basis of intensive studies and a heated, ongoing debate. The controversial questions which they present are of concern to scientists and investigators, politicians and legislators, economists and environmentalists, producers and consumers alike.

As Christians, we are not indifferent to these problems, being conscious of the importance of the values which they touch upon, as clearly stated in the 1999 report by the Pontifical Academy for Life entitled *Animal and Vegetable Biotechnologies: New Frontiers and New Responsibilities*.<sup>69</sup>

**473** *The Christian vision of Creation carries a positive view of man's moral right to intervene in the natural world, including other living beings: but at the same time, it calls for a strong sense of responsibility. (John Paul II, address to the Pontifical Academy of Science, 1982)*<sup>70</sup>

In actual fact, nature is not a sacred or divine reality, above and beyond the effects of human action. Rather, it is a gift from God: offered to the human community, trusting in its intelligence and moral responsibility. For this reason, it is not wrong for us to intervene and to modify elements of it, changing their characteristics and properties: always given that this is done with a profound respect for the natural order, and for the beauty and utility of every living thing within the ecosystem. Indeed, modifications which lead to their betterment are truly admirable. What is reprehensible is the type of interaction which causes harm to living beings and damage to the natural environment. *The fact that the use of biological and biogenetic techniques is legal does not remove the ethical problems which they present.* As with any other type of human comportment, we must carefully evaluate precisely how useful they really are, coupled with a meticulous consideration of their possible harmful consequences. When such powerful techno-scientific interventions involve a wide range of organisms, and carry the risk of long-term repercussions, it is completely immoral to apply them indiscriminately and irresponsibly.

**474** *Modern biotechnologies have a marked social, economic and political impact --on a local, national and International scale. They should be evaluated according to the same ethical criteria which must always be applied to all other forms of socio-economic or political activity.*<sup>71</sup>

*The criteria of justice and unity must be upheld above all others, and should be foremost in the minds of those individuals and groups working in the field of biotechnical research and its commercialization. At the same time, they should not be blinded by the error of thinking that the critical problems of poverty and underdevelopment which still affect so many of the planet's nations will be resolved by merely disseminating a belief in the supposed benefits associated with said technologies.*

**475** *In a spirit of international solidarity, diverse measures related to the use of biotechnologies can be adopted. In the first instance, fair trade systems must be developed, eradicating all elements of injustice. At the same time, we must realize that the development of the most deprived communities will never be truly effective if it is limited solely to an interchange of products. It is essential that their scientific and technological independence is also facilitated, by means of a sharing of knowledge in these fields, and by offering technological assistance to those countries which are in the process of development.*

**476** *This notion of solidarity also calls upon the responsibility of these developing nations – particularly their political authorities—in promoting commercial systems which benefit their entire populations, and the sharing of technologies which will improve their nutritional and sanitary conditions.*

There is a clear need for increased investment in research in these countries, paying special attention to the characteristics and necessities of their individual environments and populations: being particularly aware that certain fields of biotechnical research, which may hold great potential benefits, require a comparatively small-scale financial investment. To this end, it would be useful to create national organizations, with the purpose of protecting the common good via a careful and informed assessment of the possible risks involved.

**477** *Scientists and technologists dedicated to the field of biotechnology are called to apply all of their intelligence and perseverance in researching the most effective solutions to the grave and urgent problems of health and nutrition. It must not be forgotten that their activities have an effect on both living and inanimate components of the world, which are the heritage of all humanity –including its future generations.*

For believers, this is a gift of the Creator, entrusted to human intelligence and freedom: also the gift of the Almighty. Scientists must learn to apply all their skills, efforts and passion into their research: guided by a clear and honest conscience.<sup>70</sup>

**478** *Both the business community and those responsible for public institutions dedicated to the research, production and commercialization of products derived from new biotechnologies must take into account not only their legitimate benefits, but also their effect upon the common good. This principle, equally valid for all forms of economic activity, gains particular relevance when applied to activities concerning nutrition and medicine, and the protection of health and of the environment. The decisions of these individuals and institutions can have an important impact on developments in the biotechnological sector, orientating it to fulfil the promise which it holds in meeting the objective of fighting the levels of famine which are especially prevalent in the poorest nations, along with the battle against disease, and in the quest to safeguard the environment: our common patrimony.*

**479** *Politicians, legislators and public administrators alike bear the responsibility of evaluating both the potential immediate advantages and the long-term risks related to the use of biotechnical techniques. It is in no way desirable that their decisions, at a national or international level, should be influenced by the pressures of parties who hold a vested interest. Public authorities must also accurately obtain and take into account public opinion on these issues, in such a way as to obtain informed conclusions which will best serve the common good.*

**480** *This gives an important role to those responsible for obtaining such information, calling for high levels of prudence and objectivity. Society rightly expects such data to be complete and impartial, so that citizens' opinions on the use of biotechnological products are correctly informed: particularly because, as potential consumers, these products affect them directly. For this reason, as The Pope indicated in his speech to the Bicentennial Congress of the National Science Academy in 1982, it is vital that we avoid the temptation to believe superficial opinions, coloured either by simplistic enthusiasm or by an exaggerated sense of alarm.*

### ***c) The fair distribution of environmental resources***

**481** *In the field of ecology, the Social Doctrine of The Church also suggests that we should bear in mind that the Earth's resources were created by God for the use of all men, in a conscientious manner. These gifts, then, should be shared equally, according to criteria of justice and charity.*

This means, in essence, that their unjust distribution must be opposed, as the concept of greed – whether it be individual or collective—is contrary to the order of Creation, as clearly stated by the Vatican II Council and reiterated in Pope Paul VI’s encyclical epistle, *Populorum progressio* (1967).<sup>73</sup>

The current global ecological crisis can be effectively and simply abated by the implementation of a genuine spirit of international co-operation, which will ensure the improved co-ordination of our use of the planet’s natural resources.

**482** *This principle of a common distribution of resources offers a clear moral and cultural guideline by which we can begin to deal with the complex and dramatic connection which currently exists between the environmental crisis and the problem of poverty.* The crisis in the environment is particularly punishing for the poorest of people, whether this be because they live in areas most prone to erosion and desertification, or that they are forced to leave their lands as the innocent victims of armed conflicts, or simply due to the fact that they lack the economic or technological means to protect themselves in the face of such disasters.

Huge numbers of these poor people are forced to live in provisional camp dwellings on polluted city outskirts, or in squalid settlements of poorly constructed and often dangerous shelters: slums or ghettos. In those cases where it is necessary for people to be resettled, for whatever motive, informed decisions should be made: taking into account the interests of those involved, and offering them adequate accommodation, so as not to add insult to injury.

Furthermore, careful consideration must be given to the plight of those countries which suffer as a consequence of international commercial inequality, where the lack of available capital is frequently made still more acute by external financial debt. Given such circumstances, famine and poverty make the intensive and excessive exploitation of the environment nigh on inevitable.

**483** *The tight links between the development of the world’s poorest nations, their demographic shifts and the sustainable use of environmental resources should not be used as excuse for political and economic decisions which do not take into account the basic dignity of human existence.* As Pope John Paul II noted in his 1988 encyclical epistle, *Sollicitudo rei socialis*, in the countries of the northern hemisphere there has been a marked “decrease in the birth-rate, resulting in the ageing of their populations, which consequently renders them incapable of biological renovation”.<sup>74</sup> The situation in the southern hemisphere, meanwhile, is very different. The imbalance in population concentration and the distribution of resources presents a very clear obstacle to human development and to our sustainable use of the environment. In other words, as The Pope stated in the same communiqué, we must recognize that there is a plainly connection between demographic growth and its integrated and supportive development.<sup>75</sup>

In his message to Mrs Nafis Sadik, Secretary General of the International Conference on Population and Development in 1994, The Pontiff said:

“Everyone is in agreement that demographic politics is no more than a part of the strategy for global development. Consequently, it is important that any debate related to demographic politics takes into consideration the present and future levels of development of individual nations and geographic regions.

“At the same time, it is impossible not to take into consideration what the term *development* really means. Any type of development which is truly worthy of this name must be conducted with integrity: which means to say that it is addressed to the genuine good of all people, and to every part of the person”.<sup>76</sup>



**484** *This same principle of equality in the distribution of resources naturally applies to water also. The Holy Scriptures consider this element to be a symbol of purification (for example, Psalm 51:4 and John 13:8) and also of life (as in John 3:5 or Galatians 3:27) In his message to Cardinal Geraldo Majella Agnello, during the 2004 Brazilian Episcopal Conference, John Paul II stated this most plainly:*

“As a gift of God, water is a vital element, which is essential for survival, and as such it is the right of all people”.<sup>77</sup>

The use of water in all its forms must be orientated towards meeting the needs of all people, but especially of those living in conditions of poverty. Limited access to clean drinking water affects the well-being of large numbers of people; causing illness, suffering, conflict and poverty, which ultimately result in death. This is why an adequate solution must be found to this problem. Speaking in the same message, The Holy Father said: “A clear moral framework must be established, based primarily on the value of life, and which respects the basic rights and dignity of all human beings”.<sup>78</sup>

**485** *By its very nature, water cannot be considered as a market product like any other, and it must be used in a rational manner and be made available to everyone.*

The distribution of water has traditionally been the responsibility of public bodies, as it has always been considered as a public resource, even when its administration has been taken on by the private sector. In his message for the first World Peace Day in 2003, John Paul II observed that the right to water—like all human rights—is based upon human dignity, and not on the type of quantitative valuations which consider it merely as another form of economic commodity.<sup>79</sup> Without it, life itself becomes threatened and, for this very reason, the right to water is a universal and inalienable right.

#### **d) New lifestyles**

**486** *The gravity of the ecological crisis demands a fundamental change in our thinking, which will lead to the adoption of new lifestyles<sup>80</sup> “in such a way that our search for truth and beauty, and for fellowship and community between men for our common development, become the factors which determine our consumption and all aspects of financial activity”. (John Paul II, encyclical epistle *Centesimus annus*, 1991)<sup>81</sup>*

These lifestyles must be inspired by sobriety, temperance and self-discipline, both as individuals and throughout society. We must leave behind us the attitude that consumerism is an end in itself, and promote forms of agricultural and industrial production which respect the natural order and which satisfy the basic needs of all. This style of behaviour will be good for the conscience, renewing the realization that all the inhabitants of the Earth are interrelated. It will help to put an end to all of these ecological catastrophes, and assure a swift and effective response when such disasters do threaten to punish people and their territories, as The Pope explained in a speech at the United Nations’ Nairobi Office in 1985.<sup>82</sup>

Ecological questions should not be considered solely in terms of the terrible environmental degradation which they entail. Above all, they must be viewed as a prime motive for genuine international collaboration.

**487** *The comportment of mankind in relation to the works of Creation should be essentially characterized by a sense of gratitude and recognition: the world is a reflection of God, who*

*made it and who maintains it.* If man sets aside this relationship with God, the whole essence of its profound significance becomes empty and impoverished.

If, on the other hand, he can come to rediscover nature with a sense of childlike wonder, grasping its true evocative and symbolic significance in order to penetrate the horizons of its mystery, then he will reopen his path towards God, Creator of Heaven and Earth. The world offers us a glimpse of the traces of Himself which God has left in the place in which He chose to realize His great creative potential, providing and redeeming.

## References

- <sup>1</sup> Synod of Stams, 14-16 July, 1987: Resolution IX
- <sup>2</sup> RB 66, 6-7
- <sup>3</sup> Consuetudines II, Instituta Generalis Capituli I, in J. M. CANIVEZ, *Statuta Capitulum Ordinis Cisterciensis ab anno 1116 ad annum 1786*, Louvain 1933, 1 (13) 1134
- <sup>4</sup> FRÉDÉRIC VAN DER MEER, *The Atlas of the Cistercian Order*, 1965
- <sup>5</sup> H. KENDALL, et al: *World Scientists' Warning to Humanity, 1992: Introduction and Warning*
- <sup>6</sup> PAPAL COUNCIL FOR CULTURE: Plenary Assembly, 27-28 March, 2006.  
[http://www.vatican.va/roman\\_curia/pontifical\\_councils/cultr/documents/rc\\_pc\\_cultr\\_doc\\_20060327\\_p lenary-assembly\\_final-document\\_it.html](http://www.vatican.va/roman_curia/pontifical_councils/cultr/documents/rc_pc_cultr_doc_20060327_p lenary-assembly_final-document_it.html)
- <sup>7</sup> H. Kendall, et al: *World Scientists' Warning to Humanity, 1992: The Atmosphere*
- <sup>8</sup> H. KENDALL, et al: *World Scientists' Warning to Humanity, 1992: Water Resources and Oceans*
- <sup>9</sup> H. KENDALL, et al: *World Scientists' Warning to Humanity, 1992: Soil*
- <sup>10</sup> H. KENDALL, et al: *World Scientists' Warning to Humanity, 1992: Forests and Living Species*
- <sup>11, 12</sup> H. KENDALL, et al: *World Scientists' Warning to Humanity, 1992: What We Must Do*
- <sup>13</sup> RB 31, 10
- <sup>14</sup> VATICAN II COUNCIL: Const. past. Gaudium et spes, 15: AAS 58 (1966) 1036
- <sup>15</sup> VATICAN II COUNCIL: Const. past. Gaudium et spes, 15: AAS 58 (1966) 1036
- <sup>16</sup> VATICAN II COUNCIL: Const. past. Gaudium et spes, 33: AAS 58 (1966) 1052
- <sup>17</sup> VATICAN II COUNCIL: Const. past. Gaudium et spes, 34: AAS 58 (1966) 1052
- <sup>18</sup> VATICAN II COUNCIL: Const. past. Gaudium et spes, 34: AAS 58 (1966) 1053
- <sup>19</sup> VATICAN II COUNCIL: Const. past. Gaudium et spes, 34: AAS 58 (1966) 1053
- <sup>20</sup> VATICAN II COUNCIL: Const. past. Gaudium et spes, 35: AAS 58 (1966) 1053
- <sup>21</sup> JOHN PAUL II: Address during visit to Mercy Maternity Hospital, Melbourne (28 November, 1986) *Teachings of John Paul II*, IX, 2 (1986) 1732-1736.
- <sup>22</sup> JOHN PAUL II: address to conference of scientists and representatives of the United Nations University, Hiroshima (25 February, 1981) 3: AAS 73 (1981) 422
- <sup>23</sup> JOHN PAUL II: address to workers at the Olivetti Offices, Ivrea (19 March, 1990)

- 5: *Teachings of John Paul II*, XIII, 1 (1990) 697
- <sup>24</sup> JOHN PAUL II: address to the Pontifical Academy of Science (3 October, 1981)  
3: AAS 73 (1981) 670
- <sup>25</sup> JOHN PAUL II: address to the Bicentennial Congress of the National Academy for Sciences  
(21 September, 1982) 4: *Teachings of John Paul II*, V, 3 (1982) 513
- <sup>26</sup> JOHN PAUL II: address to conference of scientists and representatives of the United Nations  
University, Hiroshima (25 February, 1981) 3: AAS 73 (1981) 422
- <sup>27</sup> JOHN PAUL II: address to workers at the Olivetti Offices, Ivrea (19 March, 1990)  
4: *Teachings of John Paul II*, XIII, I (1990)
- <sup>28</sup> JOHN PAUL II: Homily of the Celebration at the Victorian Racing Club, Melbourne  
(28 November, 1986) II: *Teachings of John Paul II*, IX, 2 (1986) 1730
- <sup>29</sup> JOHN PAUL II: address to the Pontifical Academy of Science (23 October, 1982)  
6: *Teachings of John Paul II*, V, 3 (1982) 898
- <sup>30</sup> JOHN PAUL II: encyclical epistle *Sollicitudo rei socialis*, 34: AAS 80 (1988) 559.
- <sup>31</sup> JOHN PAUL II: message for World Peace Day, 1990. 7: AAS 82 (1990) 151.
- <sup>32</sup> JOHN PAUL II: message for World Peace Day, 1990. 6: AAS 82 (1990) 150.
- <sup>33</sup> JOHN PAUL II: encyclical epistle *Centesimus annus*, 37: AAS 83 (1991) 840.
- <sup>34</sup> JOHN PAUL II: encyclical epistle *Centesimus annus*, 37: AAS 83 (1991) 840.
- <sup>35</sup> JOHN PAUL II: encyclical epistle *Centesimus annus*, 37: AAS 83 (1991) 840.
- <sup>36</sup> JOHN PAUL II: address to the General Assembly of the World Medical Association  
(29 October, 1983) 6: AAS 76 (1984) 394.
- <sup>37</sup> PAUL VI: apostolic epistle *Octogesima adveniens*, 21: AAS 63 (1971) 416-417.
- <sup>38</sup> PAUL VI: apostolic epistle *Octogesima adveniens*, 21: AAS 63 (1971) 417.
- <sup>39</sup> JOHN PAUL II: address to the Congress on Health and the Environment (24 March, 1997)  
2: *Teachings of John Paul II*, XX, I (1997) 521.
- <sup>40</sup> JOHN PAUL II: encyclical epistle *Sollicitudo rei socialis*, 28: AAS 80 (1988) 548-550
- <sup>41</sup> From (for example): PONTIFICAL COUNCIL FOR CULTURE - PONTIFICAL  
COUNCIL FOR INTERRELIGIOUS DIALOGUE: *Jesus Christ, Bearer of the Living Water:*  
a  
*Christian reflection on the "New Age"*, Vatican Publishing House, Vatican City 2003, p. 35
- <sup>42</sup> JOHN PAUL II: address to the Congress on Health and the Environment (24 March, 1997)  
5: *Teachings of John Paul II*, XX, I (1997) 522
- <sup>43</sup> JOHN PAUL II: address to the Congress on Health and the Environment (24 March, 1997)

- 4: *Teachings of John Paul II*, XX, I (1997) 521
- <sup>44</sup> JOHN PAUL II: encyclical epistle *Centesimus annus*, 38: AAS 83 (1991) 841
- <sup>45</sup> JOHN PAUL II: encyclical epistle *Sollicitudo rei socialis*, 34: AAS 80 (1988) 559-560
- <sup>46</sup> JOHN PAUL II: address to the Congress on Health and the Environment (24 March, 1997)  
5: *Teachings of John Paul II*, XX, I (1997) 522
- <sup>47</sup> JOHN PAUL II: encyclical epistle *Centesimus annus*, 40: AAS 83 (1991) 843
- <sup>48</sup> JOHN PAUL II: encyclical epistle *Sollicitudo rei socialis*, 34: AAS 80 (1988) 559
- <sup>49</sup> JOHN PAUL II: encyclical epistle *Sollicitudo rei socialis*, 34: AAS 80 (1988) 559
- <sup>50</sup> JOHN PAUL II: apostolic exhortation *Ecclesia in America*, 25: AAS 91 (1999) 760
- <sup>51</sup> JOHN PAUL II: Homily at Val Visdende on the feast day of Saint Gualbert (12 July, 1987)  
*Teachings of John Paul II* X, 3 (1987) 67
- <sup>52</sup> PAUL VI: encyclical epistle *Populorum progressio*, 17: AAS 59 (1967) 266.
- <sup>53</sup> JOHN PAUL II: encyclical epistle *Centesimus annus*, 37: AAS 83 (1991) 840.
- <sup>54</sup> JOHN PAUL II, message for World Peace Day, 1990. 9: AAS 82 (1990)
- <sup>55</sup> JOHN PAUL II: address to the Strasbourg Court and Commission for Human Rights  
(8 October, 1988) 5: AAS 81 (1989) 685; cf. ID., message for World Peace Day, 1990.  
9: AAS 82 (1990) 152; ID: also message for World Peace Day, 1999 10: AAS 91 (1999) 384-385.
- <sup>56</sup> JOHN PAUL II: message for World Peace Day, 1999, 10: AAS 91 (1999) 384-385.
- <sup>57</sup> JOHN PAUL II: encyclical epistle *Sollicitudo rei socialis*, 26: AAS 80 (1988) 546.
- <sup>58</sup> JOHN PAUL II: encyclical epistle *Sollicitudo rei socialis*, 34: AAS 80 (1988) 559-560.
- <sup>59</sup> JOHN PAUL II: address to the 25<sup>th</sup> Conference of the United Nations Food and Agriculture Organization (16 November, 1989), 8: AAS 82 (1990) 673.
- <sup>60</sup> JOHN PAUL II: address to Pontifical Academy of Science study group (6 November, 1987)  
*Teachings of John Paul II*, X, 3 (1987) 1018-1020.
- <sup>61</sup> JOHN PAUL II: encyclical epistle *Centesimus annus*, 40: AAS 83 (1991) 843.
- <sup>62</sup> JOHN PAUL II: plenary address to the Conference of the Pontifical Academy of Science  
(28 October, 1994): *Teachings of John Paul II*, XVII, 2 (1994) 567-568.
- <sup>63</sup> JOHN PAUL II, address to International Symposium on Physics (18 December, 1982):  
*Teachings of John Paul II*, V, 3 (1982) 1631-1634.
- <sup>64</sup> JOHN PAUL II: Address to the indigenous tribes of Amazonia, Manaus (10 July, 1980):  
AAS 72 (1980) 960-961.

- <sup>65</sup> JOHN PAUL II: Homily during the Liturgy of the Word for the indigenous tribes of the Peruvian Amazon (5 February, 1985) 4: AAS 77 (1985) 897-898; also in PONTIFICAL COUNCIL FOR JUSTICE AND PEACE, *Towards a Fairer Distribution of the Earth: The Challenge of Agricultural Reform* (23 November, 1997) 11, Vatican Publishing House, Vatican City, 1997, p.15-16.
- <sup>66</sup> JOHN PAUL II: Address to Australian Aborigines (29 November, 1986) 4: AAS 79 (1987) 974-975.
- <sup>67</sup> JOHN PAUL II: Address to Australian Aborigines (29 November, 1986) 4: AAS 79 (1987) 974-975; ID., and address to the North American Indians (14 September, 1987) 4: *Teachings of John Paul II*, X, 3 (1987) 514-515.
- <sup>68</sup> JOHN PAUL II: address to the indigenous tribes of Guatemala (7 March, 1983) 4: AAS 75 (1983) 742-743; ID.  
address to the indigenous tribes of Canada (18 September, 1984) 7-8: AAS 77 (1985) 421- 422; ID.  
address to the indigenous tribes of Ecuador (31 January, 1985) II.1: AAS 77 (1985) 861; ID.  
address to Australian Aborigines (29 November, 1986), 10: AAS 79 (1987) 976-977.7-8: AAS 77 (1985) 421-422; ID.  
address to the indigenous tribes of Ecuador (31 January, 1985) II.1: AAS 77 (1985) 861; ID.  
address to Australian Aborigines (29 November, 1986) 10: AAS 79 (1987) 976-977.
- <sup>69</sup> PONTIFICAL ACADEMY FOR LIFE: *Animal and Vegetable Biotechnologies: New Frontiers and New Responsibilities*. Vatican Publishing House, Vatican City 1999.
- <sup>70</sup> JOHN PAUL II: Address to the Pontifical Academy of Science (23 October, 1982) 6: *Teachings of John Paul II*, V, 3 (1982) 898.
- <sup>71</sup> JOHN PAUL II: Address to the Pontifical Academy of Science (3 October, 1981) AAS 73 (1981) 668-672.
- <sup>72</sup> JOHN PAUL II: Address to the Pontifical Academy of Science (23 October, 1982): *Teachings of John Paul II*, V, 3 (1982) 895-898; ID.  
also address to the Bicentennial Congress of the National Academy for Sciences (21 September, 1982) *Teachings of John Paul II*, V, 3 (1982) 511- 515.
- <sup>73</sup> VATICAN II COUNCIL: Const. past. *Gaudium et spes*, 69: AAS 58 (1966) 1090-1092  
also PAUL VI: encyclical epistle *Populorum progressio*, 22: AAS 59 (1967) 268.
- <sup>74</sup> JOHN PAUL II: encyclical epistle *Sollicitudo rei socialis*, 25: AAS 80 (1988) 543; cf. ID.  
also encyclical epistle *Evangelium vitae*, 16: AAS 87 (1995) 418.
- <sup>75</sup> JOHN PAUL II: encyclical epistle *Sollicitudo rei socialis*, 25: AAS 80 (1988) 543; cf. ID.  
also encyclical epistle *Evangelium vitae*, 16: AAS 87 (1995) 418.
- <sup>76</sup> JOHN PAUL II: message to Mrs Nafis Sadik, Secretary General of the International Conference on Population and Development (18 March, 1994), 3: AAS 87 (1995) 191.

- <sup>77</sup> JOHN PAUL II: message to Cardinal Geraldo Majella Agnello on the occasion of the Campaign for Fraternity during the Brazilian Episcopal Conference (19 January, 2004) published in *L'Osservatore Romano*, 4 March, 2004, p. 5.
- <sup>78</sup> JOHN PAUL II: message to Cardinal Geraldo Majella Agnello on the occasion of the Campaign for Fraternity during the Brazilian Episcopal Conference (19 January, 2004), published in *L'Osservatore Romano*, 4 March, 2004, p. 5.
- <sup>79</sup> JOHN PAUL II: Message for World Peace Day, 2003, 5: AAS 95 (2003) 343; taken from PONTIFICAL COUNCIL FOR JUSTICE AND PEACE: *Water --an Essential Element for Life*. A Contribution of the Delegation of the Holy See on the occasion of the Third World Water Forum, Kyoto, 16-23 March, 2003.
- <sup>80</sup> JOHN PAUL II: encyclical epistle *Centesimus annus*, 36: AAS 83 (1991) 838-840.
- <sup>81</sup> JOHN PAUL II: encyclical epistle *Centesimus annus*, 36: AAS 83 (1991) 839.
- <sup>82</sup> JOHN PAUL II: address at the United Nations Office, Nairobi (18 August, 1985) 5: AAS 78 (1986) 92.