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The theology and ethics of the environment

Michael Brett-Crowther

Editor, International Journal of Environmental Studies

The paper surveys the world problematic with Orthodox Christian criteria, particularly the doctrines of the dominion of man and the divine image. A social response to the world problematic needs ethics. Although the Church cannot make the state moral, the Church must suffer with society.

Keywords: world problematic, Orthodox theology, ethics, environment

Introduction

The theology of the Orthodox Church is a worldview, *ein weltanschauung*. For Christians, theology is the understanding of God and man and nature, and it is the unique status of Jesus Christ as Son of God which makes all the difference.

The interacting, converging problems of the environment are the environmental multi-problem, or problematic (*problematik, problematique*). Thus, food supplies, health, childcare, women's rights, growing populations, and the risk of conflict converge on the problem of water scarcity. This problem is itself a problematic. Whether it is water scarcity in the Middle East or in the Indian subcontinent, it has similar features. Again, the problem of population – the excess of people to available resources of food and water – interacts with the problem of the lack of health care.

All these matters have a socio-economic, legal, political, cultural, ethical or religious component. They concern human beings with a Pleistocene biology, in a world where adaptation is necessary. They raise questions of rights, obligations, justice, and mercy. They evoke such terms as Armageddon (Apocalypse 16: 16) and Apocalypse. An apocalyptic catastrophe is probable.

To solve the environmental problematic requires changes in systems of urbanism, trade, production, consumption, resource flows, decision-making, advertising, and so much else [1–3]¹. Even reduced to 'six primary problems' [4], the environmental problematic is only a model of reality, but those six primary problems are comprehensive: food, energy, population, mass poverty, military expenditure, the world monetary system².

¹ Waddington [3, p. 9] refers to 'a series of major world problems – of population, food supplies, energy, natural resources, pollution, the conditions of cities, and others.'

² At the sixth special session of the U.N. General Assembly, Plenary Meeting 2207, 9 April 1974, Kurt Waldheim, former Secretary General, U.N., defined six primary problems: food, energy, population, mass poverty, military expenditure, world monetary system. These we regard as constituting the world problematic. A problematic – *problematique* (Fr); *problematik* (Ger) – is a multi-problem; its interactions offer solutions. The six primary problems idea can be a frame of reference for policy-making.

For 40 years, there has been little action. Yet the environmental problematic is the world problematic.

It requires correcting intentions, policies, and strategies to achieve an ethical outcome which is benign to the environment. Just as natural resources are not merely raw materials, so human resources are not merely to be reduced to their economic value [5]³. Yet there is a general political assumption that economic growth can overcome all problems.

Politicians prefer to promise growth, not to confront problems. Minamata disease was recognized in 1956; the international convention against mercury pollution was agreed in 2013: *57 years later!* The mass media encourage belief in endless economic growth. Since Limits to Growth appeared, governments and businesses have resisted the arguments [6 – 8]⁴. It appears that the White House suppressed data on global warming during the presidency of George Bush [9]. Politicians think in terms of the next election, or the interests of the governing party. They do not understand that processes may take a generation to culminate in a new situation. This failure to think ahead exposes the human race to danger.

Yet, even elites cannot avoid suffering if certain trends are protracted to a level where, e.g., a general rise in temperature by 4 degrees prevails. In Western Siberia, there is significant evidence of global warming [10]. Global warming is modifying the self-regulating patterns which have kept Earth habitable. Gaia – to accept the proved theory of Lovelock – is threatening us because we have threatened her [11].

Christian responses

In relation to the fact of Jesus, the life of the believer is arranged by ethics. These are principles of action, criteria for choice, where the faith, hope and love of the believer should combine to produce a Christian outcome. The Orthodox Churches have said nothing important about the environment which has been reported in the media and or noticed by political leaders or by non-governmental organisations. The Church of England has produced reports on nuclear war [12]⁵ and on urban life [13]. An Anglican bishop, Hugh Montefiore, has written on environmental problems [14], and an Anglican zoologist, John Morton offered a worldview [15] like the philosophy of the French Jesuit Pierre Teilhard de Chardin. Teilhard's philosophy rests on his observations as a palaeontologist and on his theology, which appears to have been influenced by Russian Orthodoxy. Although Teilhard's philosophy is a theology of the environment, his ethics are like those of other Christians [16].

The Roman Catholic Church has made statements *inter al* on workers' rights [17]⁶, population (*qua* birth control) [18]⁷, and international peace [19]. The Jesuit Social Justice Secretariat has produced a statement on desertification [20]. But, the structure of the Orthodox Churches and their interrelations make it difficult for any statement to be amplified.

³ Since 2000, Sustainability and the Millennium Development Goals, especially Goal 7, 'Ensure Environmental Sustainability', have become normal in environmental studies.

⁴ Re [8], this issue of GAIA focuses on the Limits to Growth, including a paper by Jorgen Randers.

⁵ This is a product of the Church of England Board for Social Responsibility.

⁶ Leo XIII's encyclical, 1891, *Rerum novarum*, began this line of thought and action.

⁷ Many Roman Catholics questioned the *magisterium* of the Roman Catholic Church and rejected the teaching, which ignored the population problem.

Although the Ecumenical Patriarch Bartholomew of Constantinople has condemned environmental pollution as a sin [21], his jurisdiction in Great Britain, largely comprising Greek Cypriots, has shown no notable concern with the environment. Yet the Ecumenical Patriarch has made a public *persona* from speaking about the environment, hosting cruises where like-minded guests can share their thoughts, and including the environment in his Christmas and Paschal encyclicals etc. When the Ecumenical Patriarch went to Brazil some years ago and blessed the waters of the Amazon, his act received almost no attention from the newspapers. There have been statements by the Greek Orthodox and Antiochian archbishops in the United States. Some Orthodox theologians have made statements about bioethics [22–24]⁸. The Russian Orthodox Church has also made statements on bioethics and ecological problems [25]⁹.

Developing dilemmas

Although adaptation is producing elements of solutions, *this does not mean* that a solution is certain, or socially acceptable. We cannot save people who go on reproducing beyond the capacity of the resource base to support them. We probably cannot prevent temperature rise and rise in sea level from causing disaster with mass deaths in Bangladesh etc.

Vast numbers will suffer if there are inundations through rising sea levels, or famine in water-scarce areas, or disease related to such events as new strains of influenza or TB overcoming immunity and antibiotics. HIV in Africa, India and China is pervasive. Similar disease risks exist in Russia and Western Europe, North and South America and Australasia. The Chief Medical Officer for England has stated (January 2013) that drug resistant diseases are proliferating and now are as grave a threat to national security as a major terrorist attack or global warming. The net effect may be benign for the environment, but adverse to human beings. The ethics of triage will apply.

There are at least three moral dilemmas in consequence. Firstly, rich Muslim countries which could assist disaster-prone South Asian Muslim countries (Bangladesh, Pakistan and Afghanistan) should be made responsible by Western diplomatic means, i.e., by ‘the Christian world’. Similarly, there is no international aid from Russia or from the Orthodox majority countries of the European Union (Greece, Romania, Bulgaria, Cyprus). There is no evidence of persuasion by these countries towards rich Muslim countries to help their weaker Muslim neighbours. Why should Orthodox countries be inactive? This is hard to answer (Luke 16: 19–31). And why should Christians help Maldives, which could disappear under rising sea levels, when it is aggressively Muslim, prevents Christian literature from being imported, and has destroyed pre-Islamic Hindu and Buddhist monuments? This is easier to answer (Matthew 5: 43–48).

Secondly, the indifference of God in blessing both the righteous and the unrighteous (Matt: 5, 44–45) is to be understood in relation to the Beatitudes (Matt: 5, 2–12); which Russian Orthodox and Romanians – but not Greeks or Antiochians – encounter in every Divine Liturgy. The Biblical view of the universe (Genesis 1) is that it is good (Genesis 1:

⁸ Re [24], Metropolitan Nikolaos of Mesogaia and Lavreotiki, heads the Bioethics Committee, Church of Greece, Hellenic Centre for Biomedical Ethics, G Gennimata 51, 162 31 Vyronas, Athens, Greece. 2003.

⁹ *This contains a long statement on the Bases of the Social Concept of the Russian Orthodox Church, from the Jubilee Bishops’ Council, August 13–16, 2000. Chs iv, Christian ethics and secular law; xii, Problems of bioethics; and xiii, The Church and ecological problems repay study.*

4, 10, 12, 18, 21, 25, 31); and this is congruent with the view that nature goes on adapting, securing a balance, because that is the nature of the universe. Nature is neutral; God is neutral, in the sense of blessing both the righteous and the unrighteous. The Biblical view (Genesis 2: 15) is that man is responsible for maintaining the garden, i.e., keeping the Earth productive and orderly.

Thirdly, the precautionary principle is an ethical response to environmental pollution. If an action carries the risk of harm, even if it is not certain that the action will be harmful, that action must be proved to be safe. This is related to the legal principle of a duty of care; where the idea is that of the neighbour in the sense of the gospel (Luke 10: 25–37): a point made in the leading case of *Donoghue v Stevenson [1932]*. In the sense of the neighbour, the Christian must be responsible for helping the Muslim, although in the world community of Islam, some Muslims (e.g., those in the Gulf) can and should help other Muslims (e.g., those in Bangladesh). For the Christian, the point is that the unlikely gift of help is the right gift of help, because it shows mercy, compassion (Luke 10: 37), and it is Jesus' teaching that we should do likewise (Matthew 25: 31–46). The gospel of St Mathew says that unless we act with mercy in the world as it is, we shall be denied mercy in the life to come. Christian ethics are more shocking than convenient.

The question of risk complicates the precautionary principle and the neighbour principle. Risk is a matter of probabilities. What is improbable is a safer risk than what is probable. Events have changed this idea. Thus, the probability that two airliners would collide was once unlikely; but then two airliners collided on a runway in the Canary Islands. The idea of an airliner crashing onto a crowded football stadium was once unlikely; but then two airliners were directed by Muslim terrorists to crash into the twin towers of the World Trade Centre in New York. The safety measures for Fukushima were weakened by combined events which exceeded those for which the safety systems were designed. The improbable is now probable; the unlikely may be becoming normal.

Then, there is the scale of complexity of these improbable events. The Bhopal disaster, 30 years ago, produced a chaotic reaction. A nuclear emergency in India would also be chaotic. It is unlikely that iodine tablets would be distributed to everyone. Any fallout carried by winds to Bangladesh or Pakistan would have unpredictable consequences. The calculus of risk has changed because the unlikely has become more probable than improbable. Thus, the precautionary principle has more force; and so also has the neighbour principle of Christian faith. But Christians are not dominant in South Asia.

The potential of the Orthodox Churches

Orthodoxy does not take initiatives like those taken by Anglicans, Roman Catholics or Protestant believers in the social gospel [26]. The reasons include the centuries of persecution of Orthodox Christians in lands dominated by Islam; the structure of political systems in countries which are majority Orthodox societies; the lack of education in many quarters. Ethics require to be tested in daily life and are social. Orthodox persons have a limited range of action. In the United States the Orthodox are a significant minority; but in France they live in a secular state. Undoubtedly, Orthodox Christians can seek to do good in a secular world. But statements from Orthodox Churches on ethical questions such as those in the world problematic tend to avoid conflict or challenge [25], and so they avoid the prophetic role. The Orthodox do not use the Apocalypse in their services; but its images may provoke useful thought.

Orthodox theology is expressed by the Bible, the writings of the Fathers, the decisions of Church Councils, the canons, the icons; by prayer, by the services of the Church; and these include joyful statements of the reality of the created world. For example, the Great Blessing of Waters at Theophany; the Divine Liturgy itself, where just before the communion, the priest gives thanks that God has ‘brought forth all things from nothing into being.’ The prayer of the heart cultivates an accepting, joyful, penitent approach. Holy tradition includes many components — Bible, writings of the Fathers, decisions of Councils etc — , but there is no central authority in the Orthodox Churches responsible for issuing statements on any socio-economic or political topic.

If there had not been 400 years of Ottoman rule in Greece and a similar phase in the Balkans, the areas which are now Bulgaria and Romania; if there had not been 70 years of communism in Russia and what is now her federation, in Belarus, in Ukraine, in Georgia and elsewhere in the Caucasus, the industrialising of these areas and the corresponding developments in social life would have given the Orthodox Church reason to respond to economic and social reality; without the persecution and distortion of social life which Ottoman rule and communism both produced. It is probable that as the Church had administered social welfare to those in need, whereas after 1917 in Russia this was impossible, the normal social role of the Church would have continued and she would also have taken up environmental problems. But the lack of co-ordination among the Orthodox Churches would remain the same. This is a result of the Fall of Byzantium in 1453, after which Moscow became the Third Rome; there have been tensions between Moscow and Constantinople ever since.

Genesis, the dominion of man, the divine image

The Bible states the Jewish and Christian doctrine of man’s place in nature in Genesis; which attempts to explain the cosmos. Genesis contains two creation accounts: Genesis 1:1-2:3; and Genesis 2:4–25. These say that God is creator of the universe and of all that is in it including man, who is accountable to his creator. The Fathers understood this, and so the Nicene Creed states; ‘I believe in one God, Father, Almighty, maker of heaven and earth, and of all things visible and invisible...’ Astrophysics explains The Big Bang, the moment astronomers identify as the origin of the universe; but the first verse of Genesis says the same thing: ‘In the beginning God created the heaven and the earth...’ It argues that there is a first cause. It describes God as being greater than earth gods and sky gods together (*elohim*); and the limits of the human mind are just as impressive today in explaining the moments before the Big Bang.

Genesis shows man as being responsible for maintaining order and fruitfulness in the garden [27]. Blaming Christian belief for the environmental problems of the world ignores some facts. *Firstly*, the ‘dominion of man’ is subordinate. The man in charge of the garden is responsible to the owner — God — who is the creator. The owner has made an agent responsible for maintenance and oversight. Adam, made from earth, and Eve made from a rib of Adam, are both part of nature; and so Genesis gives us an image of man’s place in nature in which man is part of nature. The Biblical dominion of man is not unaccountable dictatorship, but a subordination of man as local agent or steward of the landowner, God. Man is made in the image of God (Genesis 1: 26–28). The image can become more like the original by righteous work and God’s grace: by synergy. As S. Irenaeus of Lyons says, ‘The glory of God is the living man, and the life of man is the vision of God’ [Adversus Haereses, IV, 20,7]. This understanding — from the second

century – reflects the gospel of St John's understanding that 'the Word was made flesh and dwelt among us' [John 1: 14].

Secondly, in much of the world the Biblical understanding is absent. Ancient desert in China, Africa and Australia is natural. Other deserts of China, the Indian sub-continent, Arabia, and Africa have resulted from keeping herds of cattle, sheep and goats without adequate protection of grass, shrubs and trees. In many cases, the herdsmen are not Christian. Iran is 85 percent desert, but Christianity in Iran was persecuted into a minor form by the coming of Islam; and was exterminated in Arabia. In the Sahel, Christians are rare. Christians in Egypt are a minority, with few possibilities to take initiatives. The Egyptian government has not reversed the desert and made it productive; yet Israel has done this, and so could Egypt. The Biblical idea of man's place in nature does not produce destruction of land and vegetation.

The first monks went from Alexandria into the desert in the 4th Century, and the use of water from below the desert to cultivate plants and trees shows adaptation, but no effort to reverse desertification. There is no evidence that monasteries in Greece attempted re-vegetation of eroded mountains. The exception is the vegetated state of Mount Athos, where monasteries have looked after the environment with great care [28]. But when the State of Israel began to reclaim the Negev, after 1948, much more science and technology were available than in the 4th century. Besides, conditions for working in cool temperate climates are more favourable than those in arid and semi-arid environments. Thus, if in the ancient world Christians did not understand the relation between keeping herds of cattle, sheep and goats and their impact on vegetation, their acceptance of marginal conditions and acceptance of suffering could have been united in the religious perspective. The writings of the Desert Fathers show a positive evaluation of the barren spaces. Although Genesis makes clear the subordination of man to God, it is not a guide to desert horticulture: it is a picture of spiritual facts.

Thirdly, the rise of science and technology in the West weakened the values of Christianity through the Renaissance, the Reformation, the Enlightenment, and the Industrial Revolution. The dominion of man was replaced by an idea of man's power over nature, which did not need the hypothesis of God. Man now manifested unaccountable dictatorship, not the subordination and accountability which Genesis describes. The world problematic results from an un-Christian view of man's place in nature, not a Christian one.

Science and technology had different effects in Russia and her empire down to 1917. In Russia there was no Renaissance or Reformation, and the Enlightenment appears not to have produced an anti-religious spirit in Russia, but a widespread interest in science. It did not abolish serfdom, nor did it lead to a political revolution (as in France), and it was reversed to some extent by Paul I. Russia's Industrial Revolution had not gone very far by 1917. The monasteries in remote forests of Russia and Siberia did not have effects like coal mining in Britain and America. Russian monasteries during the expansion into wilderness are like those of the Cistercians in mediaeval England; which made land productive, became centres of social welfare, and practised efficient farming.

To demonstrate social responsibility among the Orthodox, one could instance the fish farming of the Transfiguration Monastery at Nafpaktos; or the ministry to the poor of SS. Kosmas and Damian in Moscow; or the care of psychiatric patients at Novinki by the nuns of St. Elizabeth. But, in general, the Church is not manifesting its theology and ethics sufficiently against negative trends and destructive socio-economic habits.

The Ten Commandments

Christian ethics include the Ten Commandments (Exodus 20: 2-17). The first is not to have other gods before God; but in the 70 years of the Soviet Union, the atheism of the Party became a false god. The second is not to worship any graven image, and this applies to many idols today — power, success, money, possessions. The third is not to take the name of God in vain; yet the profaning of God's name and the freedom with which we can see promises being made and broken show that this is easily broken. The fourth is to keep the Sabbath day holy; but endless activity, 24 hours and seven days a week, breaks this commandment. The fifth is to honour one's father and mother; whereas the destruction of the family in many cases, with old people rejected and their rights ignored, breaks this law. The sixth is not to kill, but this law is widely broken; and we should see this applying to many species whose habitats man has destroyed, thus affecting posterity. The seventh is not to commit adultery, and this is broken by the vast misuse of female images to advertise consumer goods. The eighth not to steal is broken to the detriment of posterity by e.g., our destruction of habitats and species, our depletion of groundwater, our pollution of productive land which thus is taken out of use. The ninth is not to bear false witness, and this is broken by mass advertising, political propaganda, some journalism, plagiarism in science and the falsification of results. The tenth is not to covet, but promotion of products by advertising will make some envy those who have them, and thus to covet what others possess.

The ninth commandment against bearing false witness raises the question whether Lysenko lied about his genetic achievements for the greatest good of the greatest number, or whether he was just an *apparatchik* lying because he wanted more power. Certainly, in *Pravda* there was no *Trud*, and in *Trud* there was no *Pravda*! The tenth commandment against coveting is broken by the encouragement to envy the lifestyle of others and inducements to borrow money — i.e., to put oneself in debt — for pleasure, to gain what is coveted. In French the word *envie* means envy, inclination, disposition, wish, mind, longing etc.

Obedience to the commandments against bearing false witness and against stealing would have avoided Lysenkoism, and collectivization. The propaganda machinery of the Soviet Union, the Third Reich, Maoist China, and probably of the United States in regard to every other country is something which has born false witness; and just because there is not now or was not then the power to overturn the propaganda, that does not reduce the wrongness of the false witness.

The scientific criteria (falsifiability, replicability, material constraints) seem to contradict ideas relying on assertions from 2,000 years ago and apparently opposed to evolution. But if Lysenko had been a Christian, would he have offered genetic alchemy and plunged science into fraud on such a scale? When Kapitsa and Sakharov denounced Lysenko, were they attached to the Biblical commandments; or did they make their attack because falsifying results and causing other scientists to lose opportunities and even their life was wrong by any criterion of rightness? Kapitsa's Jewish background may have caused him to uphold the commandment; but what Lysenko did was wrong according to natural justice. Whether the Church was free to denounce Lysenko or not, the natural law condemned him; and the natural law is in line with the Ten Commandments [29].

The utilitarian approach, cultural traditions, and actual policies

For some, ethics consist in doing no harm and in seeking the greatest good for the greatest number: the utilitarian approach. But the ethics of revelation supplement those

of reason. Utilitarian ethics can be congruent with Christian ethics if the greatest good for the greatest number means conserving natural resources, reducing human impact on the planet, and solving the environmental problematic as far as possible. No government shows this to be its worldview. Sakharov was an atheist, but believed in a guiding principle; and Darwin did not exclude ethics from his assessments of behaviour, but noted altruism in the famous case of the little American monkey which defended his keeper. Kropotkin believed in mutual aid as a working principle in nature. Christians may find it difficult to recognize similar values to their own in the religions of India and China, and Islam, but all religious traditions have an idea of man's place in nature in which man is more than a mere animal and nature is more than an assembly of resources for use [29].

The premises beneath the premises – the fundamental axioms – condition behaviour. These axioms are the same in the principal cultural traditions of the West and the East. They include taboos (e.g., murder). They agree on even-handed justice dispensed honestly, a duty not to steal the property of others, a duty to speak the truth and so on. If society repudiates these values, the controllers of society may have vast influence, no accountability, and no values worth the name [29]. This is what Hitler, Stalin, Mao, and Pol Pot achieved. All religious systems uphold fundamental axioms. Christianity accepts the Ten Commandments, but following Jesus' words Christians emphasize two (Matt: 22, 36–40), and as a mode of behaviour in general apply the golden rule (Matt: 7, 12).

Few policies are pro-environment, anti-waste, anti-pollution, or sensitive to climate change. For example, the United States exempts itself from applying Kyoto. It has no policy on reducing petroleum dependency, although Carter began Project Independence when he was president: a project reversed by his successor, Reagan. Obama's preference for clean energy and reduction in oil imports 2012 is not a radical change and has operated only since 2012. The increase in U.S. shale oil reserves simply means more competition for markets for fossil fuels; not a trend to clean energy, smart grids, or solving of the world problematic.

This is abnormal in a country which alleges that it is Christian, because Christians in general state that they are concerned about others and about the environment. The prodigious use of hydrocarbons in the United States must have an impact on global warming; yet the United States shows no responsibility for this problem. Thus, Australia's supply of coal to India and China allows the impact of Australia on global warming to be ignored by its government, because there are economic advantages in selling coal and because America does not give an example. Since there is a military treaty between Australia, New Zealand and the U.S. (ANZUS), strategy, whether military or economic, is fused. This makes the science of global warming and the ethics of the environment difficult to recognize.

India and China ignore pollution and the risks of global warming. They argue that they need to develop. If they see the disasters committed by other countries, this only makes them content with their own experience. India and China see no need to modify behaviour. Yet India at least is developing the use of solar energy, e.g., at State level; not, however, with effective endorsement by central government. Malaysia and Indonesia destroy areas of rainforest and thus the habitats of the orang utan and a wealth of creatures including possibly some not even identified, for the profits of selling the timber and or planting oil palm. Palm oil is widely used in cooking but is not healthy. While Borneo, where Wallace discovered evolution, is being wrecked, no-one argues for conservation. Such trends cannot be modified unless there is questioning within those societies.

When ethics are ignored, there are both economic and environmental costs. For example, the Institution of Mechanical Engineers states that 30-50% of all food may be wasted [30]. The report notes ineffective land usage, unsustainable water usage, and wasteful energy usage. There has been evidence of the post-harvest waste of food since the 1960s [31]¹⁰. No government in India, Pakistan, Bangladesh, or in Africa has acted to reduce post-harvest losses. Since the 1970s, miracle strains of rice and maize have produced large harvests; but the risks of mycotoxin formation in stored products, the losses by poor systems of storage and distribution etc have been suppressed. These miracle strains require costly inputs of artificial fertilizer, and these deepen the debt bondage of Indian farmers. So, as the merely quantitative approach is attractive to governments, they have ignored the waste and spoilage of food.

Ethics have often failed to constrain human behaviour; and religious criteria have often been used to justify the unjustifiable. That is why Dostoevsky made such powerful use of the Grand Inquisitor in *The Brothers Karamazov*. The defence of the French Revolution or of the Russian Revolution by cruel and arbitrary measures speaks against the value of justice professed by those revolutions. Yet when conduct contradicts values, the misconduct proves *the agents to be wrong*, to be sinful (to use the Christian term). Those who attack the values because of failure to uphold them may be disguising their own lack of values.

Human rights and basic needs

Today, there is a presumption of equality: all member states of the United Nations are equal; all people have equal rights; justice is equality. Yet the hegemony of the United States, the huge power of Russia, of China, and the rising power of states such as Brazil is somehow beyond moral constraint. To oblige nations to co-operate requires not only diplomacy or power, but also persuading with ethics and thus acceptance *because of* ethics. Few institutions and leaders are motivated by ethics. The world problematic needs action which is altruistic, far-sighted and beneficial to all. Otherwise, catastrophe will supervene.

Both coercion and co-operation are necessary. The laws and inducements to co-operate (the coercive elements) should be humane, respecting human freedom and human rights. Those fire fighters who died in the first phase of controlling the Chernobyl disaster sacrificed themselves with altruism. We recognize the equality of human beings and rely on the empathy, by which one will sacrifice himself so that another may live or be free. Empathy is what Christians call charity, *agape*, love, compassion: that love manifested by Jesus in his Crucifixion. Against this, there is the self-centred struggle to survive, experienced in the Nazi concentration camps [32, 33] and in the Gulag [34]. If trends in environmental degradation continue, this need for survival will threaten all ideas of coercion and co-operation, all ideas of ethics, and theology. Self-interest only will prevail. As Varlam Shalamov said, 'The extraordinary fragility of human nature, of civilization' was the first thing he learned in Kolyma.

The environment reflects the value systems of societies. In the Western world, and in the Russian Federation, those values are Christian. But the West exhibits moral anarchy, resulting from consumerism, the offshoot of capitalism. In Russia, this moral anarchy emerges from the injustices, persecutions, moral chaos and futility following the Russian Revolution; and then, the explosion into a new identity after the Communist Party's role

¹⁰ This lists ca 2,100 publications.

was ended — a reaction from the inhibition of the command economy and the ideology of Marxism-Leninism. Consumerism and moral anarchy may have different causes, but they create the same problems: a drain on resources, an unreality about consequences.

Marxism-Leninism was said to be scientific, but it did not prevent the disaster of the Virgin Lands of Kazakhstan; nor did it prevent the stupidity of the Chernobyl disaster. Those two experiments were unscientific. If Orthodox Christians had been in charge of the Kazakhstan Virgin Lands planning, or the experiment at Chernobyl would those experiments have gone ahead?

The Marxist-Leninists who applied their pseudo-science against the Russian Orthodox Church after 1917 gave many martyrs to the world, but wasted many human talents. The case of Fr Pavel Florensky is a spectacular example. The trend continued to the end of the Soviet Union. Thus, Sakharov, Kapitsa, Roy and Zhores Medvedev seen from the standpoint of Marxism-Leninism were enemies of Russia. But these researchers were raising questions about the legitimacy of nuclear bomb tests, the need for representative government, the role of cybernetics and so on. They were scientific and humane, crushed by atheism because they challenged its explanatory power. They asserted their human rights.

Those who framed the Universal Declaration of Human Rights included an American Lutheran — Otto Frederick Nolde — and an Antiochian Orthodox, Charles Malik; they aimed to express and uphold Christian principles. They appear in the idea of basic needs, and they are developed in the idea of sustainability and made part of the Millennium Development Goals of the U.N. [5].

The Christian vocation to freedom

Christian belief gives substance to human rights. When Russians consider the Gulag, they confront the innocent suffering of SS Boris and Gleb. When they consider the non-resistance to evil promulgated by Tolstoy and adapted by Gandhi from that and Indian sources, Russians see the prototype of innocent suffering, Jesus on the Cross. And so do all Christians. For the Incarnation brings into the created world a child who is revealed as the Son of God and who bears the burden of his Cross to save his people, and indeed all the world. The transforming power of the Resurrection is the sign of new life for the world. It is this point of salvation which makes the Church responsible for declaring the severity of the environmental problematic and for offering to lead in making good what is getting bad or worse. Salvation includes the environment.

The Russian Religious Renaissance of the Twentieth Century anticipated the contemporary world [35]. One figure stands out, Nikolai Berdyaev. He repudiated communism because it inhibited freedom. As the spiritual son of Fr Alexei Mechev, Berdyaev took his faith into the West. Berdyaev understood the socio-economic environment, and the Westernizing and Slavophil issues which arose in Russia's Enlightenment and still continue. Berdyaev recognized that the atom bomb had changed everything. He understood suffering and freedom as a Christian [36]. Fr Alexei Mechev was encouraged by St John of Kronstadt to live his ministry *among the people*. Righteous Alexei Mechev followed that path, and so did his son Fr Sergei: after the atheistic state began its struggle with the conscience of Russia, following that path (*Put'*) implied by the name of Berdyaev's journal.

Consider the poverty of Bangladesh. Here, 17.6% of the population — i.e., 26 million people — belong to the extreme poor. They are mostly landless. With the use of a portable

bamboo silage store, they can store silage for their milk cattle conveniently; and can increase their income by 110 percent, from about Taka 2,000 (\$25) per family by 2,200 taka (\$27.5) per month *to reach the figure of Taka 4,200 (\$52.5) p.m.* This percentage increase applies during the 4 monsoon months. But the return probably will fall in the other 8 months of the year if the silage is not stored using the portable bamboo system. A family is on average 5 persons. The 110% increase depends on having a cow, either owned outright or borrowed on terms [37]. These are people living in the worst conditions imaginable. Christian ethics require support for such people; action to help them.

The problematic of Bangladesh merges with that of India, which will suffer if Bangladeshis need to escape from rising sea levels through global warming [38]. Towards the end of Gandhi's life, he produced his Talisman, an ethical standard:

I will give you a talisman. Whenever you are in doubt, or when the self becomes too much with you, apply the following test. Recall the face of the poorest and the weakest man [woman] whom you may have seen, and ask yourself, if the step you contemplate is going to be of any use to him [her]. Will he [she] gain anything by it? Will it restore him [her] to a control over his [her] own life and destiny? In other words, will it lead to *swaraj* [freedom] for the hungry and spiritually starving millions? Then you will find your doubts and your self melt away [39]¹¹.

Gandhi wrote this because he probably repented for having ignored the rights of the Untouchables, the Dalits; who are the extreme poor in India, in Pakistan and Bangladesh. Gandhi prevented them from having political representation by an act of moral blackmail in 1932, when he threatened to fast unto death unless their advocate, Dr B.R. Ambedkar gave up his demand for separate electoral representation. Gandhi's repentance came late; but he recommended Ambedkar as Law Minister, the man responsible for India's Constitution after Independence in 1947. As Ambedkar said in 1956, 'I shall believe in the equality of man [40].' This joins with words from Berdyaev in 1939: 'Christians do not have the right to hold to a political current that would trample down freedom and humanness, that would be opposed to the Gospel spirit of love, mercy and the brotherhood of people. Christians ought to unite in a struggle for the freedom of man [41].'

Thus, we need a social response to the environmental problematic [42]¹². Political solutions may be functional, to maintain order. Or there may be humane solutions, concerned with freedom [43]. There is no freedom without ethics; and without ethics there is only tyranny. The Church must walk in the way of the Cross, with hope for solutions, with faith in the Resurrection, and with love. The Church must be the Body of Christ in the world, seeking to reconcile all things through Jesus (Col 1: 20).

References

- [1] Huxley, A., 1963, *The Politics of Ecology: The Question of Survival* (Santa Barbara: Center for the Study of Democratic Institutions).
- [2] Waddington, C.H., 1977, *Tools for Thought* (London: Jonathan Cape).
- [3] Waddington, C.H., 1978, *The Man-Made Future*, (London: Croom Helm)
- [4] Waldheim, K., Secretary General, sixth special session, U.N. General Assembly, Plenary Meeting 2207, 9 April 1974.
- [5] www.un.org/millenniumgoals/envIRON.shtm.

¹¹ One of the last notes left by Gandhi, these words show his concern with village India. This criterion should apply worldwide.

¹² This is difficult for the Orthodox Churches to strengthen for reasons discussed.

- [6] Meadows, D.H., Meadows, D.L., Randers, J., Behrens W.W., 1972, *The Limits to Growth: a Report for the Club of Rome's Project on the Predicament of Mankind* (London: Earth Island)
- [7] Turner, G., 2008, A comparison of the Limits to Growth with thirty years of reality, www.csiro.au/files/files/plje.pdf.
- [8] Turner, Graham M., 2012, On the cusp of global collapse? Updated comparison of the Limits to Growth with historical data. *Gaia – Ecological Perspectives for Science and Society*, 21(2), 116–124.
- [9] James Hansen – Wikipedia, the free encyclopedia en.wikipedia.org/wiki/James_Hansen.
- [10] Kirpotin, S.N., Western Siberia special issue, *International Journal of Environmental Studies*, 66, Issue 4, August 2009, 403–404
- [11] Lovelock, J., 2006, *The Revenge of Gaia* (London, Allen Lane)
- [12] Baker, J.A., 1982, *The Church and the Bomb: Nuclear Weapons and Christian Conscience: the Report of a Working Party Under the Chairmanship of the Bishop of Salisbury* (London: Hodder & Stoughton).
- [13] Archbishop of Canterbury's Commission on Urban Priority Areas, 1985, *Faith in the City: A Call to Action by Church and Nation* (London: Church House Publishing)
- [14] Montefiore, H., 1969, *The Question Mark: the end of homo sapiens* (London: Collins)
- [15] Morton, J., 1984, *Redeeming Creation* (Auckland: Zealandia).
- [16] Teilhard de Chardin, P., 1964, *Le Milieu Divin: an essay on the interior life* (London: Fontana).
- [17] Coleman, John, A. S.J., ed. 1991, *One Hundred Years of Catholic Social Thought* (Maryknoll, NY: Orbis Press).
- [18] Humanae Vitae – Encyclical Letter of His Holiness Paul VI on the ... www.vatican.va/.../encyclicals/.../hf_p-vi_enc_25071968_humanae-... by P VI – Cited by 7 – Related articles
- [19] Benedict XVI, 2013 World Peace Day Message, Blessed are the Peacemakers (Vatican web page) http://www.vatican.va/holy_father/benedict_xvi/messages/peace/documents/hf_ben-xvi_mes_20121208_xlvi-world-day-peace_en.html
- [20] D'Souza, L., S.J., Desertification Fact Sheet, Desertification Fact Sheet – Ecology and Jesuits in Communication ecojesuit.com/wp-content/uploads/2011/.../Desertification_ENG.pdf
- [21] Chrysavgis, J., 2007, Ecumenical Patriarch Bartholomew: insights into an Orthodox Christian worldview, *International Journal of Environmental Studies*, 64, 9–18
- [22] Harakas, S.S., 1993, An Eastern Orthodox Approach to Bioethics, *Journal of Medicine and Philosophy*, 18, 531–548
- [23] Breck, J., with Breck, L., 2006, *Stages on Life's Way: Orthodox Thinking on Bioethics* (Crestwood: St Vladimir's Seminary Press)
- [24] Hatzinikolaou, N., 2003, Prolonging life of hindering death? An Orthodox perspective on death, dying and euthanasia, *Christian Bioethics*, 9, 187–201
- [25] ortodoxia ffv0.tripod.com/id114.htm
- [26] Brunner, E., *Justice and Social Order*, 2003 (Cambridge: Lutterworth Press)
- [27] Black, J., 1970, *The Dominion of Man: the Search for Ecological Responsibility* (Edinburgh: Edinburgh University Press)
- [28] Papanastasis, V.P., Arianoutsou, M., and Papamastasis, K., 2010, Environmental conservation in classical Greece, *Journal of Biological Research – Thessaloniki*, 14, 123 – 135
- [29] Lewis, C.S., 1943, *The Abolition of Man: Reflections on Education with special reference to the teaching of English in the upper forms of schools* (Oxford: Oxford University Press)
- [30] Global food – Waste not, want not | Institution of Mechanical Engineers www.imeche.org/knowledge/themes/environment/global-food
- [31] Morris, R.F., ed, 1978, *Postharvest Food Losses in Developing Countries: a Bibliography*, (Washington D.C.: National Academy of Sciences).
- [32] Brett-Crowther, M.R., *International Journal of Environmental Studies* (1977), 11, 139–142; Review, Cohen, Elie A., 1973, *The Abyss: a confession* (New York: Norton & Co)
- [33] Cohen, Elie A., 1954, *Human Behaviour in the Concentration Camp* (London, Jonathan Cape)
- [34] What I've seen and learned at Kolyma camps // Varlam Shalamov shalamov.ru/en/library/34/1.html
- [35] Zernov, N., 1963, *The Russian Religious Renaissance of the Twentieth Century* (London: Darton Longman & Todd)
- [36] Berdyaev, N., 1949, *The Divine and the Human* (London: Geoffrey Bles)

- [37] Khan, Md. M.R. *et al*, Small-scale silage-making technology for the extreme poor on floodplains, *International Journal of Environmental Studies*, 2013, 70, 192-202
- [38] Subhro Niyogi, 'Climate horror to be worse than Partition', *The Times of India*, March 26 2008
- [39] Pyrelal, 1958, *Mahatma Gandhi: The Last Phase*, (Ahmedabad, Navajivan Publishing House); Vol. I, February 1956; Vol. II, February 1958, p. 65.
- [40] Ambedkar, B.R., 1956, Our Mission, India Once Again A Buddhist Nation ! According to Dr Babasaheb *Ambedkar*, "what is called religion by Hindus is ... In 1956 Dr Babasaheb *Ambedkar* became a Buddhist and in a mass-conversion ... www.jaibheem.com/ – Cached – Similar
- [41] Berdyaev, N., 1939, Does there exist freedom of thought and conscience in Orthodoxy? SUS-CHESTVUET LI V PRAVOSLAVII SVOBODA MYSLI I SOVESTI? In Journal Put', feb./apr. 1939, No. 59, p. 46-54. Also Journal "Novaya Rossiya", No. 68, 30 May 1939. © 2001 by translator Fr. S. Janos. In http://www.berdyaev.com/berdiaev/berd_lib/1939_441.html
- [42] Stern, N., 2009, *A Blueprint for a Safer Planet*: how to manage climate change and create a new era of progress and prosperity (London: Bodley Head)
- [43] Brett-Crowther, M., *International Journal of Environmental Studies* (2011), 68, 1005-1014; Review, King, Stephen D., 2011, *Losing Control: The Emerging Threats to Western Prosperity* (New Haven, CT and London: Yale University Press)

About

Michael Brett-Crowther – Editor, *International Journal of Environmental Studies*, 1 rue des Albizias, Queue d'Ageasse, 79190 Lorigne, Deux-Sevres, France. drmichaelbrettcrowther@gmail.com