

The 2010 Ruth Edgcombe Environmental Challenges Memorial Lecture
delivered in October 2010 by Bishop Geoff Davies, Director of the Southern African Faith
Communities' Environment Institute (SAFCEI)

Economics and the Planet

My profound thanks to the KZN University School of Environmental Sciences and the Wilderness Action Group for their invitation to give the Ruth Edgcombe Environmental Challenges Memorial Lecture for 2010.

I accepted, because it's really important we discuss these challenges. I also hoped this would be an opportunity to pay tribute to Ian Player. It was almost this time last year that I received the SAB Environmentalist of the year award. I did not know that I had been nominated! I mention this as I was so surprised I never thanked Ian for his encouragement. I now want to do it. I believe I received this award because we are encouraging the involvement of the faith communities in environmental care. When I first mooted starting SAFCEI, I consulted Ian. He was enormously supportive and affirmative. I think he said it was about time the churches got involved! So, a year later, I want to thank you Ian.

I also want to thank the Wilderness Action Group. We humans cannot fully develop our spirituality devoid of wilderness places. If you ask me where I discover God, my reply is in the Drakensberg or on the Wild Coast

It is most timely when the UN Biodiversity Convention in Japan is reporting the alarming loss of biodiversity. More than 80% of South Africa's main river ecosystems, 65% of its marine zones, 13% of its plants, and 20% of its mammals are threatened. The Endangered Wildlife Trust has said this will have a "serious economic impact" on the country.

WWF's Living Planet report 2010, records that humanity is living well beyond the means of the earth's capacity to regenerate natural resources on which we depend. This is the consequence of the "unprecedented drive for wealth of the past 40 years" which is putting unsustainable pressure on the planet. [CT 18 Oct 2010.]

Another reason for accepting is that I will do whatever I can to promote environmental care, or in other words, to encourage the care of God's creation! Kate and I even walked five hundred miles through England on the Christian Aid "Cut the Carbon" Climate Justice March three years ago.

In talking about God's creation, perhaps I should make it clear that I am not a creationist. I believe that God is behind it all, and if God took more than 13.5 billion years to bring it about is all the more reason we don't mess it up now! In brief, I see no difficulty in God using evolution to bring about his purposes. In fact I now see that understanding evolution is really helpful in making us realize just how intricately we are part of the rest of life on this planet. Here I think I was helped by my scientist wife. Her zoology professor at UCT, Gideon Louw used to say to me: "In this Department we take evolution as gospel truth!"

I, however, must warn you that I am neither a trained environmentalist nor an economist. In preparing for this lecture, I was much encouraged by the adage "*Economics is too important to be*

left to the economists.” Economics involves all of us, and when I hear what is taught in universities, I have to say that our economists have not been very good housekeepers.

I read history – which all people should study – and social Anthropology at UCT and Theology at Cambridge. My talk is largely anecdotal, but I hope I communicate the main gist of my concerns.

I have been greatly helped by one of your former theologians here in Pietermaritzburg, Klaus Nuremberger. He is masterful in bringing together theology, economics and environment, a necessary combination! I commend his books, published by Cluster here in Pietermaritzberg. But to meet the environmental challenges facing us does not necessarily require academic training. It requires passion, determination, boldness and even righteous indignation in speaking out. Ian Player has been an exceptional example, speaking out boldly. It struck me when I started to think about this talk that Jesus showed righteous indignation when he cleared the temple of money lenders. They had desecrated the house of prayer. But is it only the temple or place of worship that is sacred? Is not all of creation with this miracle of life sacred? Yet we have turned the world into a den of thieves, exploiting at every opportunity nature’s life and treasures, now threatening all life in the interests of economic gain. Some righteous indignation is, I believe, needed.

But what are these challenges facing us?

I list a litany of impending environmental challenges, not because I think you don’t know them but because society, government and the media generally fail to face them.

I am sure you can add to the list:

1. **Environmental destruction** involving biodiversity loss, habitat destruction and pollution of our life support systems.
2. **Political violence:** I list this because we know how destructive to the natural environment human conflict can be. During war we pay scant regard to the environment. The Kuwait war is a recent example. Under this heading I include the misuse and waste of precious resources, both economic and natural, in so called defence. The world spends well in excess of two trillion dollars a year on “defence”, with the top six military nations spending over one trillion. Yet we can’t agree on \$200 billion for climate change. Military expenditure is, frankly, unjustifiable. It is also highly risky. Part of this expenditure is on Weapons of Mass Destruction which pose a huge risk, not only to us humans but all life. We still have large stocks of nuclear warheads held by the nuclear nations, with the US holding 2,468 active warheads and Russia 4,650. Nuclear proliferation is an ever present danger as smaller states seek to assert their influence. The use of chemical and biological weapons is also a threat.
3. **Poverty:** Extreme poverty is enormously destructive of both people and environment. My experience is that poor people are not stupid. They know the importance of trees, even as they cut them down in desperation with no other source of fuel or cash. Many through no fault of their own have been forced off land. But all, rich and poor alike as well as the planet, suffer as more and more forest cover is removed or water contaminated through pollution and lack of sanitation, as we are experiencing increasingly in South Africa.

The economic inequalities have reached totally unjustifiable levels. This champagne glass illustrates just how unjust the position is. The richest 20% receiving 82.7% of total world income, while the poorest receive 1.4%. This is an affront to God, who provides for our needs,

not our greed. It is a clear indication of the moral bankruptcy of our present world economic system.

4. **Climate Change:** When we come to climate change we face the potential of global environmental destruction. The IPCC reports are conservative in their estimates because of pressures from countries with vested interests, but a member of the IPCC at UCT - a competent scientist – has said he had been advised to tone down his reporting as the worst case scenarios are so alarming that people might throw their hands up in desperation and conclude that we might as well eat, drink and be merry, for tomorrow – if not us, then our children – will die.

The position is alarming in the extreme. Foremost is the impact on biodiversity, which is the fundamental concern. I mention but some of the climate change threats:

Melting of ice: The melting of sea ice has no effect on sea levels, but the Albedo Effect of dark water instead of white ice means the absorption of more solar radiation.

The melting of glaciers will have catastrophic effects for the hundreds of millions dependent on water supplied by glaciers.

The damage from the melting of land ice in Greenland and the Antarctic will be incalculable. Sea levels are rising. Even if marginally at this stage, it is enough to submerge Pacific Ocean islands.

Just imagine the impact if **sea levels** rose one metre, which is quite possible. Consider the impact on coastal cities and areas, home to two-thirds of the world's population. But how many billions would be forced to flee their homes if the West Antarctic and Greenland ice melted, raising sea levels by more than seven metres. You would have to come by boat to the island of Table Mountain! If the entire Antarctic ice were to melt away, sea levels would rise by at least 64 metres! Table Mountain has seen that before, but not since we were around.

Tipping points: The most alarming threat is tipping points. Irrevocable events in the ecosystem will happen when temperature increases reach a certain point. These events will be quite beyond our control. As sea temperatures rise, so sea water which is a carbon sink below 12 degrees C, no longer absorbs carbon. The Gulf Stream could be severely weakened or halted. The Amazon rain forest could dry out and become a massive source of carbon emissions instead of a carbon sink.

The El Nino weather periods would become more common and stronger.

Methane gas: Most alarming would be runaway global warming from the melting of ice and tundra and the release of methane gas. Twenty-three times more potent as a greenhouse gas than CO₂, methane gas could rapidly hasten a spiral of higher temperatures, more ice and tundra melting, greater quantities of greenhouse gases, higher temperatures until our planet reaches more than a 6 degree temperature rise, making it pretty uninhabitable for much of life.

It is all pretty alarming. What is equally of concern is that while methane is more potent than carbon dioxide, its shelf-life, so to speak, is thirty years whereas CO₂ is going to remain effective in the atmosphere for the next 100 years. Temperatures are going to rise, and there is nothing we can do – except one thing which I shall come to in due course.

Since being asked to give this lecture I have fortuitously received two publications. The first is "The Greatest Challenges of Our Time" by Laszlo Szombatfalvy, from Sweden, whose booklet was distributed by the Tällberg Forum. His distinctive contribution is risk analysis which he applies to the challenges facing us. Risks, he writes, consist of two components: the possible damage itself and the probability that the damage will occur.

As an example, he considers the risks involved in flying. Between 2001-2008 there were a total of 239 airplane accidents, about 30 a year. During the same period there were a total of 25 to 30 million flights globally. This means there was about one crash per one million flights globally. He then calculates the probability of a tragic plane crash not one in one million flights, but one in a thousand. We would then read of about 2,500 crashes per month, or 8 a day. If the world statistics were representative of the USA, we would then have 7,000 airplane crashes out of the 7 million flights taking off from American ground annually. Would there still be any commercial passenger air traffic? Not at all likely, he concludes. Neither public authorities nor potential passengers would accept such risk levels, even if they were “only” one per thousand.

I certainly flew here to give this talk in the expectation that I would arrive safely. I was not so sure of the drive up from the airport!

He then applies this to these four problem areas: environmental damage, political violence, poverty and climate change. In all four areas of he finds a very high probability of risk.

When it comes to climate change, even if we said there was only one in a hundred risk of runaway global warming, we would not tolerate that rate of risk for flying or driving, yet we seem blithely oblivious, or reluctant to act, when it comes to climate change.

I want to ask why we have landed ourselves in this predicament of having to face such major environmental challenges, then to ask why we have not faced the risks involved and finally consider what steps need to be taken to meet these challenges and – hopefully - confront or ameliorate them.

I see two overriding causes for the environmental challenges confronting us:
Population and consumerism or over-consumption or.

Let us look at each.

Population

Human population is the great unspoken threat. It used to be spoken of frequently in the nineties. I don't know if it was following the Cairo Conference that we stopped hearing about it. My recollection is that Cairo said that people needed to be lifted out of poverty and reach an economic and educational level before they limited their family size. It also, rightly, said that women needed to be educated and empowered, and the guilty seemed to be the unholy alliance of Islam and Catholicism upholding patriarchy.

The position is that since the start of industrialization world population has increased 8.5 times, from 800 million to 6.8 billion. At its present rate of increase of 1.2 percent annually, there will be 12-13 billion people in fifty years. I believe the UN forecasts 9 to 10 billion before we level out. I find it difficult to envisage that. I think famine, plague, or war will afflict us. This is hardly a civilised, responsible solution, but when I look at our own country I see impoverished rural communities in the former homelands, characterised by children everywhere on lands that are already overgrazed and eroded, or in overcrowded informal settlements with scant provision of basic essentials such as sanitation and potable water, and again, children everywhere. We already fail to provide for our present population. How are we going to cater for double the population?

Kate and I have recently attended a British Council climate change workshop in Ethiopia of religious leaders of Africa. We undertook a field trip prior to the conference in this fascinating country.

Because of the influence of religious leaders in Africa, it is hoped that faith communities can play a part in assisting communities to adapt to climate change. Ethiopia could be said to epitomize the predicament we are in. Now with a population of nearly eighty million, we found almost every inch of this fertile volcanic land utilized for food production. Where the fields were not planted to the edge of the road, they were heavily overgrazed by the abundant cattle, goats and sheep. There are no fences. The animals were herded by men or young boys and girls.

Ethiopia, we were informed, had forty eight percent indigenous forest cover fifty years ago. Now it is three percent, with Eucalyptus found everywhere. The only remaining indigenous forests are surrounding the monasteries and churches. There was a great variety of food being planted, from tiff to sorghum, barley, wheat, oats, rice (a recent introduction) chick peas and beans. We wondered what steps, if any, the people themselves could take to adapt to climate change. The essential initiatives that could be undertaken would be the establishment of small scale dam and irrigation systems and the provision of renewable energy technology – all now well within the bounds of technology, but inaccessible without the political will of the rich nations of the world. With 85% of the population involved in subsistence agriculture, they are at present totally dependent on the whim of the climate. Climate change will bring disaster.

I vividly recall a car trip back from the Cape one January. The Eastern Cape was experiencing a severe drought. There had been little rain. As we approached Ugie we went through a terrific thunder storm. The sun came out after the storm and we saw water shimmering in the well-contoured furrows and the maize glistening with the fresh rain. We then descended the Devil's Elbow to the former Transkei and hit another heavy thunderstorm. As it cleared, we saw a river of brown, muddy water sweeping off the bare land and down the three metre donga, rushing to carry the last remaining bit of topsoil to the browning ocean. Too many people had been forced to eke out an existence on too little land. Look at any of our rivers in a summer of good rains and see them carrying South Africa's biggest export, our topsoil, to the seas. It is so clearly visible if you fly along our coasts after being "blessed" with good rains. The same applied in Ethiopia. The Blue Nile Falls we renamed the Brown Nile Falls.

[Brown Nile PP]

During my seventeen years as a Bishop in the former Transkei, on many a Sunday as I drove to a distant parish I would arrive depressed and filled with concern at the sight of the overgrazed, denuded landscape of that once beautiful land. My mood would be transformed by the wonderful lively and enthusiastic spirit filled worship, but I wondered about the future when I looked at the many children who would gaze at me with great expectation. What is their future on a land already over-extended?

Increasing populations require more resources, land, water, food – and as prosperity increases so does the demand for more resources. So, we have to conclude that in spite of the silence on the subject, the issues of population and poverty have huge impact on habitats and biodiversity, even though people don't use the energy resources demanded by the rich.

Many governments adopt the attitude that the question of population increase should be left to families and not the government. The stand of the Roman Catholic Church can only be described as highly unfortunate and even irresponsible. In 1995 the Anglican Synod of Southern Africa passed a resolution encouraging family planning.

Rabbi Hillel Avidan of the progressive Jewish Congregation in Durban, a long time advocate of environmental care, likes to remind people that we have long fulfilled God's command in Genesis 1 to go out and populate the world!

Consumerism

The second cause of the environmental challenges facing us I describe as consumerism or over-consumption.

It's an old debate. Which is more damaging, over-population or over-consumption? The issue is epitomised by this cartoon: *Too many kids; Too many things.*

[PP Cartoon)

We have all heard the rich – that could well be us – saying *“There are just too many people in the world. That is why deforestation, erosion, water shortages and extinctions are taking place.”*

The poor, if they have a voice, can rightly complain of the inequity that others can live in luxury while so many live in squalor without clean water, sanitation or food and that we use thirty or even fifty times more energy in a lifetime.

Professor Ernst Conradie at UWC, who has written so deeply and prolifically on the environment from the Christian perspective, has written that since his two children will each use more than thirty times the energy and resources of a child in Mozambique, it is as if he had brought sixty children into the world. Yes and no. At the same time those sixty children in Mozambique, or Malawi or Ethiopia will cut firewood, graze animals, plough in unsuitable locations and have a huge impact on an already over utilized land.

We have considered how damaging over-population is, but I have to come down on consumerism as the more guilty party. The poor may be responsible for biodiversity loss – which is the real danger – but it is climate change that will be a cause of massive biodiversity loss and who and what is causing climate change? It is the rich, so called “developed” nations that have established a life-style standard that is now totally unsustainable. And what has caused this? We now get to the nub of what I need to talk about – our economic system.

Over-consumption, or consumerism, is so dangerous because it is driven by our current neo-liberal economic system that flourishes on our instinct of self-centredness, acquisitiveness and greed and is premised on covetousness, the last - you will recall - of the prohibitions in the Ten Commandments.

Because it appeals to our basic desires of “I want,” consumerism has become, in the words again of Ernst Conradie, the most successful religion the world has seen. It is sweeping the world. Look at India and China, but you don't even need to go outside our borders. Look at our own country – it is flourishing. But it has within it the seeds of our destruction. Far from achieving our liberation in South Africa, we have become economic slaves as we pursue our consumerist desires that have now made us the most unequal country in the world, with huge poverty levels and increasing environmental destruction.

And we fail to make the connection between inequality and crime and violence. We are the richest country in Africa, yet we have the highest crime and violence rates. Go to our neighbouring countries and you don't find the levels of crime we experience here. In our recent trip to Ethiopia where there is extensive poverty there is nothing like the crime found here. Why? I believe it is due to the inequalities of our society. If I lived in an informal settlement without clean water and sanitation and little prospect of a job I would deeply resent that others had so much more while I lacked basic essentials. I would be sorely tempted to resort to crime, whereas if we are all in the same boat you don't have that resentment.

My great disappointment following our democratic elections is that a government of the people – so soon after coming into power in 1994 – forsook Ubuntu in pursuit of neo-liberal capitalism, lured and dazzled by the glitter of consumerism. Africa had something inherently valuable, which could have been a gift to the world, in Ubuntu. In forsaking it, which we have done, we have sold our African soul to mammon, the age old temptation

We have been told that we can't serve God and mammon. If there was ever an age when we were bowing down to serve mammon, it is now. Our economic system encourages us to pander to our self-centred instincts. But we have within us both self-centredness and generosity and other centeredness. These instincts can be controlled or encouraged by the mores, beliefs and structures of our societies. What do our present structures support? What are the ethos of our society and the priorities of our government? Overwhelmingly the answer is the creation and acquisition of wealth.

So how do we influence our basic instincts to be concerned about others – to be other centred? Is there a solution? I believe that it requires the reassertion of principles and values.

This is the theme of the other publication that landed on my lap, a fascinating book by Bruce Rich, a Washington lawyer who attended a panel I spoke at in Washington DC at the World Bank's Spring Meetings this year. He passed his book "To Uphold the World – A Call for a New Global Ethic from Ancient India" onto me, saying he thought I might find it helpful.

Bruce Rich introduced me to the Emperor Ashoka, born 2,300 years ago, whom I admit I had not met before. Amartya Sen, in his foreword to the book, quotes H.G. Wells: "Among the tens of thousands names of monarchs that crowd the columns of history.....the name of Ashoka shines, and shines almost alone, a star." He was a mighty ruler, the third Mauryan emperor of India, his territory stretching from Afghanistan to Bengal and beyond. But his name is honoured today, not because of the size of his empire, but for the ideas he championed and his well-remembered deeds, like building hospitals - for people and animals - and erecting inscriptions on stone across the country about the nature of good behaviour and the regard we should have for each other, as well as his role in spreading Buddhism abroad.

Bruce Rich argues that the core of Ashoka's "essential doctrine" lies in the "reverence for life that goes beyond the role of the just treatment by human beings of one another: reverence for life upholds the world. Influenced by his conversion to Buddhism, his basic belief is in the fundamental value of all life.

The fascinating aspect of this study is that Emperor Ashoka is counterbalanced by Kautilya, principal adviser to Ashoka's grandfather, the first Mauryan emperor Chandragupta, and author of *Arthashastra*, translatable as "Economics." He believed people could be made to behave well only through the force of restraint and punishment. What is so exceptional is that Kautilya is the first thinker in history to place economics as the overarching organizing principle and priority of society. He is modern in seeing economic prosperity as both the underpinning and the goal of society and the state.

Ashoka promoted Dhamma, defined in his various edicts and inscriptions on 21 major rock pillars, as a secular ethic of non-violence, charity, compassion, tolerance, social welfare, good governance, purity of heart, respect for parents and kin, protection of animal and plant life, and frugality. His multiethnic, multicultural state was built on fundamental values of tolerance, non-violence and respect for all life, including abstention from killing animals. Bruce Rich frequently makes the point

that there was greater tolerance and respect for life than in the last few decades in Washington DC!

I want to read a few quotations from this fascinating book:

Adam Smith from his *"The Theory of Moral Sentiments"* says *"Justice is the main pillar that upholds the whole edifice....If it is removed, the immense fabrick of human society...must in a moment crumble to atoms."* It is justice that upholds society, not the pursuit of economic gain.
[Bruce Rich: *To Uphold the World – A Call for a New Global Ethic from Ancient India*, p48,49]

Vaclav Havel sees the fundamental problem of our time as: the *lack of accountability to and responsibility for the world.*" Page 163-4:

Hans Kung calls, above all, for an ethic of planetary responsibility in the place of the *"ethic of success,"* a new global ethic based on *"concern for the future and reverence for nature."* P. 164.

Francis of Assisi and Ashoka refer us back to the obvious – which globalized economic civilization relegates to oblivion – that we inhabit a world of other sentient beings, the welfare of whom we should respect and care for as an absolute end in itself, as a foundational principle of individual and social behaviour. Such an attitude of reverence for life carries with it the principle of non-violence toward all living beings. [Page164 -5]

Confucius wrote of the need for ethics and justice. Aristotle warned that there are two economic systems, greed and need and that it would be disastrous if we followed the greed system.

These principles are not only important because they are right, but because our own survival – as well as the rest of life – depends on implementing them.

The more we discover about life on this planet, the more we realize how intimate our relationship is with the rest of the living world. We are totally dependent on the well-being of the planet. Like parasites, we are poisoning and destroying the planet and we are paying the price.

Yet economic decisions, both here in South Africa and globally, are made paying scant regard to the well-being of the planet. Economic decisions drive our policy decisions. This I experienced at the World Bank in April when the President, Robert Zoellick, reported on economic recovery while I tried to point out there was little point in having economic recovery or, with reference to the World Bank loan for Medupi power station, having an abundance of electricity, on a dead planet.

We have considered the environmental challenges confronting us, arising, I have suggested, from over-population and over-consumption. What therefore is needed to transform the situation?

I believe the environmental threat from both overpopulation and over-consumption can be addressed by applying the principles of justice and equity, which are biblical but are called for by almost all religions. The essential new direction we must take is that justice and equity must be applied to all life, not only to humans. The first and fundamental principle is to recognise that we are totally dependent on the well-being of this planet – our only home – and that our priority must therefore be caring for this planet, its people and all life on it. We must place the planet first. Again, in biblical terms, we have been charged to be "earthkeepers." We must put planet and people before profit – and I hope I'm being *prophetic* in saying this!

This brings us to the core of the matter. Since I maintain that the primary cause of our current crisis is to be found in our present global economic system, to find a solution, we must radically transform our economic system. This is the challenge, but herein also lies our hope.

In simple terms, factors of production are land or natural resources, labour, capital and enterprise. It is held that there will be a natural supply and demand balancing these.

We have in our world today a position where capital has predominated while people and environment have suffered – alarmingly. Free marketers claim how much growth there has been under capitalism. They do not mention that in the same time the destruction of the environment has increased almost exponentially and the poverty levels have reached alarming proportions – at a time when there is more money and more resources than ever.

Capitalism is premised on growth, but how can that work on a finite planet?

I ask myself – occasionally! – if I am being purely Utopian in thinking our economic system could be otherwise? Has it not been proven with the collapse of communism that the capitalist economic system is the only way to go? See what phenomenal growth we have experienced since the era of Maggie Thatcher and Ronald Reagan. Look now at China. Since opening its doors to capitalism and outside investment, it is experiencing phenomenal growth as it seeks to lift its people out of a previous subsistence economy and lifestyle.

We have the G20, the World Bank, the political leaders of the world, our own leaders with a daily mantra on SABC that economic growth is the solution – the only solution. It permeates every level of society. It may have been as long ago as a decade that I was at a Synod with a Professor of Economics, from a worthy university but not here! I told him how excited I was reading Klaus Nuremberger's books. Shaking his head, he responded that as economists, they can't take him seriously.

Discussing this with a student friend of my daughter, Rebecca Murdoch described her experience of Economics at UCT. I asked her to put it in writing. I think her response worthy of quoting:

"As the only social science student majoring in Economics in my year, I was very disappointed at the almost complete lack of critical engagement with the economics curriculum taught at university, especially in first and second year. Indeed, it seemed most students from commerce, finance and business studies would graduate without ever having critically engaged with the likes of economic theorists such as Adam Smith, John Keynes or Karl Marx. Instead, students diligently yet unquestioningly went about studying economics based on the bourgeoisie market capital system. Demand and supply, cost minimization and profit maximisation were the order of the day in a world of profit-seeking and money-driven men and women. Taking what I had learnt from political philosophy into the economics classroom only drew blank looks from students who in their wildest dreams had not imagined an economic order serving any purpose other than profit. Had they not heard of a 'developmental' economy? A 'pro-poor' economy? A 'feminist' economy? Even a 'green' economy?"

I discovered that university economics, devoid of ethics and historical and political contextualisation and interpretation, was instrumental in a society that puts profit before people. By failing to locate South Africa's economy in its transitional and developmental context, students were tragically discouraged from asking the question that South African

universities, even those in commerce, finance and business, should be asking – what kind of society are we seeking to serve?"

No wonder I hear of “economic autism”, that economics is just not relating to the reality of the world. We talk of the three components of sustainable development being society, environment and economics. Our present policy is that economics dominates all. The reality is that all is subsumed in our life sustaining environment. Economics is but a tool to further the purposes and policies that we pursue.

Money has to be seen for what it is – a resource to be used by us. The market must not be worshipped as an independent god. We must use the market and money as the resource it is, not be slaves to it. There must be growth, because of population growth, but the right kind of growth – in education, health, productive labour intensive industry. Wealth is not the possession of money, it is health and relationships and security.

So why have we let the situation get so out of hand? Why have we not confronted the risks involved? Again, I put it down to the dominance of capital which has allowed and developed such economic injustices. Consumerism is encouraged by capital. Be aware too that the media is controlled by a handful of moguls who obviously want the capitalism that is benefiting them so much to continue and flourish.

I need to say here that in no way do I want to quench individual initiative and enterprise. It is important that we are free to pursue our enterprises. The problem is that, because of our innate greed and self-centredness, we are frequently irresponsible and immoral in our pursuit of wealth. I cite the slaughter of rhino as one example. There must be constraints for the greater good. I also point to the power and greed of many multi-national corporations who, in their pursuit of profit, have impoverished and denied freedom – I would even say – enslaved millions around the globe. I want to mention some of the absurdities of our pursuit of profit maximisation and efficiency. Some are not only absurd, but downright immoral in the face of our environmental challenges. This was brought home vividly by two recent films: Food Inc. and Eating. In Food Inc. we see how drive in restaurants became the vogue in the USA. Then two brothers developed a system where they did not actually need chefs, but with a well developed production line using less skilled labour, they could roll out hamburgers faster, cheaper and more efficiently. So they could be cheaper, so they could expand – around the world. The trouble is that when you see that translated to the “efficient” abattoirs you see the mass slaughter of animals by the thousand. There are now only five major abattoirs for the United States. It is cheaper and more efficient to raise cattle in feed lots, but fed with antibiotics because of the way they are reared.

The mass production and slaughter of cattle, pigs and chickens is contrasted with an organic farmer who grazes his cattle on the pasture on his farm, his cattle fertilize the soil and they don't need antibiotics. Maybe it costs a bit more, but the American corn and meat industry is so heavily subsidized that we don't calculate the full costs, not only by the way we treat other sentient beings, but with the growing obesity and health risks of a meat intensive diet. We also cut Amazon rain forest to grow maize for cattle, exacerbating climate change. The meat industry is responsible for eighteen percent of greenhouse gas emissions. Add to that, if we fed all the grain to people that goes for animal feed, we would have more than enough food. But the capitalists might not make as much money.

I won't eat in a MacDonald's, not only for these reasons but because they knocked down the old bakery here in Pietermaritzburg to build a drive through restaurant, and your city fathers allowed it!

Briefly, look at the fishing industry. We are killing this incredible resource because we won't fish sustainably, instead use nets a kilometre long and long lines 30 kilometres long, so we can be more "efficient" and maximizes profit. See the film "The end of the Line."

Why are we polluting and killing the world with plastic bottles and containers? One reason is that it is convenient and more attractive, so it helps sell the product. The other, of course, is that it is cheaper to use a new container than reuse the old one. Consider the billions of containers – even wine bottles! – that are dumped or, possibly, recycled. Every time I fly I see containers and utensils being dumped. Think of the jobs that could be created if we reused containers. It does not happen because it would cost more.

This does not mean I am against efficiency per se. We desperately want Transnet and municipal sewerage plants to function efficiently. The competition between motor manufacturers is bringing about far greater fuel efficiency.

But we have to ask what the motive is for greater efficiency? is it for profit or for the betterment of humanity and the planet?

We desperately want Eskom to promote energy efficiency. If they did so, it would save having to build two new coal power stations. I have to say it: Eskom is now an absurdity and an anachronism and I am not saying this behind their back. I have written to them and the Ministers concerned. With the recommissioning of Camden power station on Saturday - with Grootvlei and Komati still to come - we heard the media release from Eskom that they are to invest R385 billion over the next five years. This will double our capacity and ensure our energy security.

If you have not followed the IRP2010 saga, please do. You will find it on the Department of Energy's website. This is laying out South Africa's energy plan for the next twenty years, but in effect, the next fifty years because you won't want to scrap a R140 billion investment in a new coal power station prematurely.

In this plan we will complete Medupi and Kusile coal power stations and from 2023 bring on stream six new nuclear plants. We have to sign contracts early next year to get in line for nuclear equipment, we are told. Where will this money come from? For coal, Eskom could not raise the money from merchant banks, so obtained loans for Medupi from the African Development Bank and the World Bank. As far as I know, we have still not got the money for Kusile, but we have already signed contracts worth R40 billion. When it comes to nuclear, where will that money come from?

I quote a comment from Amory Lovins, from the Rocky Mountain Institute, and energy consultant: *"The world in 2008 invested more in renewable power than in fossil-fuelled power. Why? Because renewables are cheaper, faster, vaster, equally or more carbon-free, and more attractive to investors. Worldwide, distributed renewables in 2008 added 40 billion watts (South Africa's total!) and got \$100 billion of private investment; nuclear added and got zero, despite its far larger subsidies and generally stronger government support. From August 2005 to August 2008, with new subsidies equivalent to 100+% of construction cost and with the most robust nuclear politics and capital markets in history, the 33 proposed US nuclear projects got not a cent of private equity investment."*

If the US can't attract investors, or insurance cover for nuclear energy generation, how will we? It can only come from the Government, and that means our taxes. Six nuclear plants will cost what - a trillion Rand? The R385 billion we are investing in coal leaves the amounts we spent on the arms deal and our stadia standing.

Contrast this with the fact that we have the best solar and wind resources in the world and that investors are queuing up to invest in wind. All we need is for the Government to open the door and – I like to add – end Eskom’s monopoly.

In November 2009 Scientific American carried an article “How to get all energy from wind, water and solar power by 2030.”

As it is, we are set to build the third and fourth largest coal power stations in the world, emitting thirty billion tons of CO₂. Why are we doing it, against all reason? I can only conclude that those with power have vested interests in the coal industry, with the knowledge that nuclear generation is going to involve huge sums of money with great potential for corruption due to the secrecy of nuclear deals. SAFCEI’S media statement says that the IRP2010 is a plan for the smelting industry. Capitalists will benefit. People and planet will pay a heavy penalty.

Clearly Eskom’s decision making is clearly dictated by financial considerations. If you doubt that, I refer you to “Electric Capitalism”, edited by David McDonald and published by HSRC Press. When Eskom was established it was to be a service provider, but its mandate was changed to operate on business lines. I think we sometimes wonder if it is doing either successfully.

Eskom’s policy would be absurd if we considered the finances only. Add to this the reality of climate change and it becomes immoral that we should pursue the path of pollution. I said earlier that there is only one thing we can do to ameliorate, or mitigate, the effects of climate change, and that is to start reducing emissions urgently. I have a WWF report that shows that if we want to generate sufficient renewable energy capacity to replace our present reliance on coal and nuclear, we need to start doing so seriously by 2012, and that we should also start reducing our emissions by then. The Stern report said the sooner we start doing so, the less costly it will be, requiring only 1% of world GDP.

No country, including ours which is guilty of 50% of Africa’s emissions, can claim carbon space. What developing countries can claim is ecological debt from the rich countries that are responsible for our having got into this predicament, so that developing countries are assisted with renewable energy to leapfrog the fossil fuel era into the clean solar era.

The UNFCCC COP 17 is to be held in South Africa at the end of next year. Having hosted the World Football Cup, we will now host the world climate cup. It is our prayer that Africa will raise its voice for a meaningful agreement that places the future of the planet at the centre of negotiations, not financial considerations. The faith communities are planning to be involved in trying to ensure that we decide on principles of justice and not financial expediency.

As host country we hope that South Africa will set an example by turning to renewable energy and reducing emissions. We must do the right thing, regardless of what other countries do. It is like disarmament. You can’t wait for the other country to act first. We surprised the world with our democratic elections. It is now highly important that we continue on the line of making principled decisions based on justice. If we turn to renewable energy, not only would we be doing the right thing for the health of the planet, we would become a leader in Africa, and create thousands of jobs.

Here is the key. Just as we had to abolish apartheid and establish justice among people, so we have to establish planetary justice if we are to have peace. The government’s and World Bank’s policies of high energy and high capital are on the completely wrong trajectory, but beloved of capitalists as machines are easier to manage than people! Fossil fuel has brought about huge sources of energy.

It has also allowed for huge inequalities, and it has done millions out of work. South Africa's biggest social problem is unemployment. The answer is not to build more power stations but to equip people and enable them to find their own solutions. There are still three million homes without electricity. Don't try to solve that with a centralized grid system, but with renewable energy. I doubt that we will do it because of the power of the fossil fuel lobby.

These must be that we live in harmony with the rest of creation. How do we do that?

It is an absurdity that politicians of the world – and our country! – continue to jostle for power when the planet is facing a life threatening cancer. Just as the Allies banded together to confront the forces of fascism and totalitarianism, and just as the UDF was formed to fight the heresy and practice of apartheid, I hope – and pray – that the nations of the world will come together to confront these huge environmental threats facing us. They are sufficiently serious to warrant the coming together of nations. Whether we humans will realise this in time remains to be seen.

South Africa showed the world that a way forward is possible. We are one of the few instances in history where those in power handed over, or shared, before an all-out conflagration or war. We now face a global apartheid with those with wealth and power wanting to continue on the path of wealth creation at all costs – despite the consequences for the poor and the environment. When you look at the policies of rich nations, there are so many similarities to the apartheid regime, where privilege and wealth was maintained by the force of arms until it had to buckle under the sheer pressure and demand for justice.

In the face of global apartheid, can we do this with globalisation?

While preparing this paper, WWF's Living Planet 2010 report was published. Among other points it stated:

- Subsidies in energy, fishing and agriculture drive and over-consumption and are harmful to humanity.
- Our survival means making fundamental changes to our economies.
- To live sustainably we need to make big changes in energy and food.
- It is possible to provide renewable energy for all.

What do we need to do?

Transcendent values

Transcendent values need to be upheld by all nations. "The supreme challenge," to quote George Soros, "is to establish a set of fundamental values that applies to a globalized society". These values are upheld by the religions of the world, particularly the values and principles of justice and equity.

The crises facing us call for a foundational transformation of our economic structures. We are not going to turn this economic juggernaut around easily. The Declaration at Cochabamba, Bolivia in April 2010 may blame Capitalism, but we won't easily convince the Americans. So we should make a start by implementing full cost accounting.

Here I look to the economists for the details. A start must be made with the universities teaching sustainable economic policies!

I ask what the motivating, driving forces in life are? Survival is the basic instinct, but beyond that, is it to acquire wealth? Status, fulfilling one's ego? Is it to establish a better world for our children, or a more sustainable planet? For some, is it to further the Kingdom of God?

Consumerism

The Worldwatch Institute State of the World report for 2010 calls for a transforming of cultures, from Consumerism to Sustainability. This is crucially important and challenges our present economic system head on. Instead of our culture encouraging the acquisition of wealth and possessions, we devote our energies to bringing about a more sustainable world. What did you accomplish in your life? Was it a R20 million Aston Martin and a Waterfront mansion complete with yacht, or did you develop good relationships with all around you and actually help to save some species from extinction? I often think that instead of the wealthy – and corporations – spending money on football stars or yachts in the America's Cup, far more significant would be to invest in protecting, for example, the Great Apes.

We can do it if we change our culture. Adam Smith wrote pertinently:

“What is the end of avarice and ambition, of the pursuit of wealth, of power, and pre-eminence? Is it to supply the necessities of nature? The wages of the meanest labourer can supply them. ... It is the vanity, not the ease or the pleasure, which interests us. But the vanity is always founded on the belief of our being the object of attention and approbation. The rich man glories in his riches, because he feels that they naturally draw upon him the attention of the world.”

Let us draw attention and fame to those who are serving and saving the world and all life in it.

Earth Jurisprudence

Earth Jurisprudence must be developed and endorsed by the nations of the world. We have in South Africa a leading advocate in Cormac Cullinan, author of *Wild Law*, who helped draft the new constitution of Ecuador which recognises the rights of Mother Earth. He has also helped draw up the Universal Declaration of Rights of Mother Earth at Cochabamba in April 2010, and the Global Alliance for the Rights of Nature.

I must read you Archbishop Desmond Tutu's endorsement.

“Successfully addressing climate change and healing the damage which industrial civilisations have done to Earth will require more than new technologies and market mechanisms. It will require a fundamental transformation of our relationships with Nature. We are not masters of Earth, entitled to dominate and exploit her ‘natural resources’ for our own selfish ends, but privileged participants in a wondrous and sacred community of life. Bringing about this transformation and creating viable human communities that live harmoniously within the Earth community will require committed and concerted action. The Universal Declaration of the Rights of Mother Earth calls upon each of us to embrace our kinship with all the beings of the Earth community and to recognise, respect and defend the rights of all. Now is the time to answer the call.”

Global Regulations

At the same time it is essential that we arrive at global regulations regarding carbon emissions but even more important regarding biodiversity loss. Since we live in a globalized world with a globalized economic system, it follows that we must have global regulations for the protection of people and planet. The days of nations are rapidly becoming outdated. We need a body that can give oversight for the well-being and flourishing of the entire planet and its people. This does not mean that we cease to operate on a regional basis with national football teams but that we recognise a global interdependence! When one part of the globe suffers, we all suffer the pollution or destruction that is occurring.

Global Currency

With the current debate about currency exchange, I really wonder why we can't envisage a global currency. Using the US dollar in Zimbabwe, seems to have brought some stability to their economy. Can we not envisage a global currency?

Global Energy

At the same time, should we not envisage a single price for energy? This applies to the price of oil, what about coal and electricity? Would this not help present the export of polluting smelters to developing countries because of subsidized electricity prices, such as happened in our country?

Global Justice and Equity

In pursuing justice and equity, we would be on the path of overcoming the immoral poverty of our present day world. By establishing justice people can help themselves in overcoming poverty. In establishing justice there will no longer be the need to spend vast sums on so called "defence." This would unleash resources to meet the challenges of climate, develop small dams for subsistence agriculture, and stem the horrific soil erosion and desertification occurring throughout the developing world – in short, to overcome environmental degradation and meet the MDGs.

Democracy

Democracy is so important, as it allows people to be accountable and take responsibility for their own lives. With democracy, justice and equity, people will be able to live in security, hereby not needing to rely on large families for their security. Wangari Maathai says that if we want peace, we must have equitable access to natural resources and democracy.

Role of SAFCEI

I believe the faith communities have a crucial role to uphold the values that I believe God calls us to. We should promote them. This of course means overcoming the heresy of "prosperity theology" found in some religions, at a time when we face such environmental challenges.

The faith communities have a crucial role because what we have to confront, in brief, is greed, which is encouraged by our consumerist society and the self-centredness of our Western individualism. I also believed that Christianity, and most religions, are about being concerned about others, but now not only concerned with us humans, but all life.

SAFCEI an example of the faiths recognizing their similarities – which are far greater than their differences – and uniting for Eco-justice,

Boldness

How do we bring about the necessary changes? You don't need an environment degree. You need to listen to that gut feeling that says *"The way the world is going is wrong. We have got to change it."* Then speak out boldly, all of us. That is what Ian Player did. That is why we pay tribute to Ruth Edgecombe. That is what has brought about every change.

My last quotation is from Max Weber: *"Certainly all historical experience confirms the truth – that people would not have attained the possible unless time and time again they had reached out for the impossible. But to do that a person must be a leader, and not only a leader, but a hero as well."* (Page 95).

The Faith Communities, the universities, all of us need to speak out boldly and challenge our political and economic leaders, and tell them we have got to change - before we have planetary

collapse! South Africa showed the world before. Let us join together to show we can do it. The future of life is dependent on it!

The lecture ended with a DVD on a healthy planet, from Liz McDaid of the Green Connection.

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"Faith Communities Committed to Cherishing Living Earth"