

**'The Environment and Generational Justice' - Mary Colwell
CSAN Caritas in Veritate Study Day 24th March 2010**

“Nature, especially in our time, is so integrated into the dynamics of society and culture that by now it hardly constitutes an independent variable”.

Ch 4: 51

The first thing I would like to say is how much I appreciate “the environment” being put into a social encyclical. This is an important step because removes it from the nether regions *of other issues to be discussed*, an add on or side issue to the real subject matter of religion - and places it firmly at the centre of Catholic social justice. Now there is a recognised and real connection between the health of the natural world and the flourishing of humanity. That is very welcome.

“Today the subject of development is also closely related to the duties arising from *our relationship to the natural environment*. The environment is God's gift to everyone, and in our use of it we have a responsibility towards the poor, towards future generations and towards humanity as a whole.”

....

“Consequently, projects for integral human development cannot ignore coming generations, but need to be *marked by solidarity and inter-generational justice*, while taking into account a variety of contexts: ecological, juridical, economic, political and cultural.”

Ch 4: 48

It is interesting that the encyclical refers to our *relationship* with the earth - and it is that word relationship which is so crucial. Catholicism is about right relationship - which I think can be summed up by 4 relationships that are all vitally important and which we have to have in balance to be fully human - our relationship with God, with ourselves, with each other and with the earth. Each one of those has to be balanced and in harmony with the others, we can concentrate too much on our relationship with God and forget our neighbour, we can concentrate too much on ourselves and forget God - and it is easy in our secular and sophisticated age, to forget the earth totally.

For too long the Church has emphasised the first 3 but has forgotten the importance of the fourth. This encyclical puts it back into its rightful place, at the heart of how we view each other, our fulfilment and our well-being. Here it states we have a fundamental relationship with the natural world that we cannot disregard if we are Catholics - and for me that is a huge step forward.

A relationship is always 2-way; it cannot be unilateral. It is recognition that we are connected to the condition of the earth. But what is of interest to

me is the kind of relationship we are talking about - and this is important as it defines our role on earth. From my reading of the encyclical it seems to define our relationship in two ways, as both stewards and as gardeners of the earth:

“Nature is at our disposal not as “a heap of scattered refuse” but as a gift of the Creator who has given it an inbuilt order, enabling man to draw from it the principles needed in order “to till it and keep it” (Gen 2:15)”.

Ch 4:48

“Human beings legitimately exercise a *responsible stewardship over nature*, in order to protect it, to enjoy its fruits and to cultivate it in new ways, with the assistance of advanced technologies, so that it can worthily accommodate and feed the world's population.”

Ch 4: 50

These are very interesting sentences which require more analysis. Both stewards and gardeners should be wise and caring overseers who tend the earth in order to gain the resources we need to survive. And not just for this present generation, it is clear in defining our responsibility for intergenerational justice.

“...we must recognize our grave duty to hand the earth on to future generations in such a condition that they too can worthily inhabit it and continue to cultivate it”.

This is true, we do indeed need to use the earth wisely to feed ourselves and provide the resources we need for industry and so on. But for me stewardship lies short of what our relationship should and could be, and being a gardener of cultivator of the earth is just a part of our engagement with nature.

So where did it come from - that phrase stewards of the earth? It isn't biblical; in fact I think it was originally an NGO phrase, but I would like to find out for sure. Actually it always reminds me of something Prof James Lovelock said when he was once asked about our role as stewards, he replied: “Humans are as qualified to be stewards as goats are to be gardeners.”

But leave that somewhat cynical, although largely true, sentiment and ask why *stewards* of the earth? Stewardship is used biblically to describe the role played when something - money for example - is given by a master to a servant to take care of while that master is away. It has a managerial tone, a sense of looking after something that we understand and can change, alter, transform while the master is doing other things. Chris Bain and I talked about this and he explained CAFOD are stewards of people's

donations - the money trusted to them to turn into good in their absence. I agree, that is a good use of the term steward. In fact stewardship in this sense has been a teaching of the church for a long time. At the end of the 19th century the Pope draws our attention to the right relationship between humanity and the earth in *Rerum Novarum* of 1891: “God has given the earth for the use and enjoyment of the whole human race” and made the animals “to serve and to obey”.

Also Pius XII, in addressing farmers in 1946, called them “active stewards of your native soil”.

So if we are stewards of the earth - where has God gone? Is he no longer with us? And is our role purely one of fair and just management? If we are managing the earth to provide resources for our wellbeing, what role does wilderness play? How do we encompass awe, wonder, mystery, exploration, a sense of humility and fear?

Let’s here just stop for a minute and remember what it is we are talking about. It is easy to use a lot of words, but I find pictures say so much.

SHORT FILM

Incredible places and creatures - so what is our relationship to mountains, deserts, and the deep ocean? To animals and plants that are of no obvious practical use to us at all? They are not “resources” so how should we relate to them? Here is a good example to consider.



The Amazon basin sits entirely within Catholic countries; it is cradled in the hands of the Catholic world. I believe this gives the Catholic Church a special duty of care towards this most extraordinary ecosystem. 50% of the world’s biodiversity resides here. And where there are people the Church has a wonderful record in protecting and fighting for the rights of the poor and indigenous, and people like Sister Dorothy Stang died fighting for the rights of the forest where the poor lived. But what about those vast areas where no people live? What does the Catholic Church think its relationship is to uninhabited rainforest? To tend it and till it for food? I certainly hope not - we have to protect it against tending and tilling. My feeling is that if

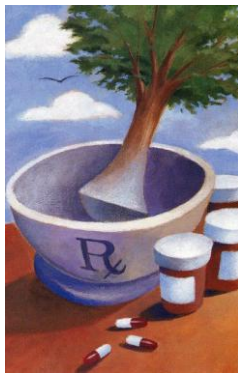
we define ourselves as stewards who *tend and till* then our relationship to those places that are not suitable for that is weaker.

The phrase from the encyclical says we have a duty to protect the earth

“Human beings legitimately exercise a *responsible stewardship over nature*, in order to protect it, to enjoy its fruits and to cultivate it in new ways...”

Ch 4: 50

But why protect it? That depends on the relationship. We can protect it because we can argue it is useful to us because many of our drugs are based on rainforest plants - for cancer, malaria, pain killers and so on. Who knows what other useful treasures may lie yet undiscovered?



We can argue that we should protect it because it is useful as a carbon sink - especially vital today with our concerns over high levels of CO₂ in the atmosphere.



Trees can absorb the carbon dioxide we produce, or conversely, chopping them down will release stored carbon, making matters worse.



We can argue protection because it is useful as a regulator of climate systems and moisture content in the atmosphere.

The Amazon has a total river flow greater than the next eight largest rivers combined and the Amazon area is the largest drainage basin in the world, accounting for approximately one-fifth of the world's total river flow. It also contributes about 20% of the total volume of freshwater entering the oceans worldwide.



All of these are “useful” things for humanity, to put it mildly, and useful for everyone, not just those in the immediate area. But what happens if we can artificially manufacture the drugs we need, if we can deal with carbon through new technologies, if we can regulate climate ourselves through space shields or cloud seeding - do we lose the argument for protecting the Amazon? Or is our relationship with the Amazon basin not just based on its usefulness for humanity, but rather on its value as an ecosystem that tells of the glory of God? Enables us to wonder, provides us with mysteries to be solved, places to be explored and fill us with a deep yearning for the Creator? Does the Amazon Basin have a value to us in and of itself?

I wonder whether steward and gardener are the right terms to describe our relationship with the Amazon. The Orthodox Church have a different view, seeing us as priests of creation, taking part in the ongoing journey of the earth to its final deliverance.

“Just as the priest at the Eucharist offers the fullness of creation and receives it back as the blessing of Grace in the form of the consecrated bread and wine, to share with others, so we must be the channel through which God’s grace and deliverance is shared with all creation. The human being is simply yet gloriously means for the expression of creation in its fullness and the coming of God’s deliverance for all creation.”

We must be a channel through which God’s grace is shared with all creation is a wonderful phrase. And it goes onto say something quite astounding:

“This may well mean that just as a shepherd will in times of greatest hazard, lay down his life for his flock, so human beings may need to forego part of their wants and needs in order that the survival of the natural world can be assured. This is a new situation—a new challenge”.

(Orthodoxy and the Ecological Crisis - published 1990 by the Ecumenical Patriarchate of Constantinople and WWF).

To me that is a different take on being a steward or gardener. It is interactive, meshed into, a sense of sharing in the experience of all life. But is it something the Roman church can agree with?

Now what about the thorny phrase

“with the assistance of advanced technologies, so that it can worthily accommodate and feed the world's population.”

Ch 4: 50

Here is a whole can of worms that needs far more time than we have this morning to unpack. But it seems clear that this sentence refers to GM foods, which the Vatican has endorsed. I am not an expert on GM, but I do worry that we are nowhere near sure enough about the effect of such crops on the healthy functioning of the ecosystems where they are used. How they fit into the pattern of pollination and their effect on local biodiversity is, as far as I know, not yet well understood. And GM also allows people to “own” patents of certain designs that can be used to gain profit from the poor who have no option but to buy into the system. This is obviously appalling but also may have the effect of reducing the creativity and traditional knowledge of farmers who will purely rely on technological food, rather than working with local environments and local conditions to provide what is best for an area. This is a highly disturbing endorsement of our control over nature with technology, which in another part of the encyclical is warned against!

“...it is also necessary to reject the opposite position, which aims at total technical dominion over nature, because the natural environment is more than raw material to be manipulated at our pleasure; it is a wondrous work of the Creator containing a “grammar” which sets forth ends and criteria for its wise use, not its reckless exploitation... Reducing nature merely to a collection of contingent data ends up doing violence to the environment and even encouraging activity that fails to respect human nature itself”.

Ch 4: 48

Nature is more than raw material, it is more than a collection of data to be manipulated - it contains a grammar that allows us to understand its wise use. Can this fit with changing the DNA of a plant, swapping material between species? Perhaps a better way of using nature is to work with it locally and creatively rather than change it for a universal solution? It seems this needs far more explanation and understanding and can't be summed up in a few words within one sentence.

It is easy to get lulled into a sense of security, its ok because we have the technology to manipulate the world - it is practical, pragmatic. Well perhaps we should listen to Bertrand Russell:

Pragmatism is like a warm bath that heats up so imperceptibly you don't know when to scream."

When do we stop manipulating? What is the part of the wedge that is too thick? Perhaps though the Pope feels GM and reliance on technology has to be the only way because there are so many of us to feed and look after. And here I come to the section that I find quite honestly disturbing. Its worth having a look at this in full:

"To consider population increase as the primary cause of underdevelopment is mistaken, even from an economic point of view. .. Due attention must obviously be given to responsible procreation, which among other things has a positive contribution to make to integral human development".

"Populous nations have been able to emerge from poverty thanks not least to the size of their population and the talents of their people. On the other hand, formerly prosperous nations are presently passing through a phase of uncertainty and in some cases decline, precisely because of their falling birth rates; this has become a crucial problem for highly affluent societies...

"Furthermore, smaller and at times miniscule families run the risk of impoverishing social relations, and failing to ensure effective forms of solidarity. These situations are symptomatic of scant confidence in the future and moral weariness. It is thus becoming a social and even economic necessity once more to hold up to future generations the beauty of marriage and the family, and the fact that these institutions correspond to the deepest needs and dignity of the person."

Ch 4:44

As it stands every year around 75 million people - a population nearly as big as Germany's - are added to the Earth's surface. That's another city the size of Birmingham every five days, and all those people need food, water, energy, shelter, goods and services. That is a lot of people, so let's look at this statement.

First - this assertion pays no regard to the health of women who have to bear large families. It seems to be universally true that as a nation becomes wealthier, and its women educated, family size decreases. That says to me that by and large women chose to have smaller families unless forced by economic circumstances to do otherwise. Large families can be a strain on women's health and makes it harder for them to work outside the home.

Secondly, It is true that population alone does not account for environmental destruction; it is how we live on the earth that is the main

driver of degradation. There are enough resources and space for a small population where everyone has a decent and dignified standard of living, there is not enough for a big population, all of whom aspire to live like westerners. It has been said many times, many ways, so why is this not recognized?

As developing countries get richer their standard of living increases, which is of course right and just, we therefore have to keep the world population level to a sustainable number, not keep on increasing, as is implied here.

No matter how creative, how resourceful, how functional the future families of the earth are, they will still need resources. Creating ever more urban areas will obviously impact on whatever wilderness remains, or degrade further areas already under strain. If the Pope is wisely saying:

“The Church has a responsibility towards creation and she must assert this responsibility in the public sphere. In so doing, she must defend not only earth, water and air as gifts of creation that belong to everyone. She must above all protect mankind from self-destruction”.

Ch 4: 51

It is hard to see how self-destruction can be avoided if population levels continue to rise. And I don't believe any amount of technology or creativity will be enough to compensate for the damage we will do.

In a recent conversation with Harvard medic and researcher Dr Aaron Bernstein, he pressed strongly against our reliance on our cleverness to work outside the natural boundaries that are intrinsic in the functioning of earth's ecosystems. He said that biggest challenge facing humanity is not to work out how we can always maximise what we take from nature, but to work out how best to optimise it - always being mindful of the limits imposed on us.

Thirdly, the idea that large families generate social cohesion and stability could be tempered with the negative effects of developing tribalism and clans. There is no right or wrong about family size, some people enjoy large families, some would be better off keeping to the “miniscule” level. It is the quality and moral tenure of the family and how it sees itself as part of a community that is important - that is not linked to family size.

Finally I want to touch upon a phrase that has been used very often in the last 2 decades - “human ecology”. Pope John Paul 11 first introduced it in 1991 and Pope Benedict has carried on with the same phrase.

It is a very good term - it is a recognition, to my ears, that we humans *have* an ecology, i.e. we don't float above the surface of the earth taking what we need with no impact. We are 2-legged mammals with an ecological footprint, just as any other species impacts on its sphere of influence. It is a recognition that we are interconnected with the web of life and not apart

from it. But I would like to suggest that we really take a serious look at that connection.

Let me give you an example of human ecology. The Chinese like eating the meat of civet cats. As China's population grew civet cats were farmed, as wild ones were becoming scarce. At the same time, the expanding population of China in the area around the farms cut down many of the forests. Fruit bats, which are normally scared of and stay away from people, were forced to find food and roost in areas closer to people. It so happens that both the fruit bats and the civet cats harbour the same virus. The fruit bats passed on this virus to the cats, the people ate the cats and for the first time people suffered from the virus. The worldwide scare of SARS was born. That is human ecology - our incredible ability to change the natural order and at times create chaos and bring about situations that can be highly dangerous. How come we can share the same diseases as animals?

Slide of % of DNA shared with chimp/fruit fly/cabbage.

It comes as a surprise to people just how physically similar we are to everything else, how the very matter which makes up our bodies is the same as other creatures. That similarity has real consequences. It means pathogens that exist in one species can often pass into us - bird flu, SARS, HIV and swine flu being recent examples. The way we concentrate animals in intensive farms increases the likelihood of a transfer of disease. So too does the fact that we destroy habitats, making it more likely disease carrying animals will take refuge in urban sites - or be in contact with animals we farm and hence then passed onto us. This interconnected world works on the level of micro-organisms that constantly mutate and develop different form. We can never catch up, we will always be fire fighting. Our intensification and concentration of creatures, our changing of habitats and our widespread use of anti-biotics in ourselves and in farm animals only helps to make disease transmission more likely. Viruses are very good at changing to defeat our medicines. So do we really understand the term "human ecology", or do we still have a mindset that works on the principle that we are above it all and are clever enough to counteract anything that happens?

Much research is now being carried out on the "human micro-biome". Each person in this room is a walking individual eco-system, a two legged rainforest if you like! Our guts contain 1000 different species of bacteria, our skin is home to 700 different species. These micro-communities are essential for health, but are influenced by the world around us. As we change the nature of eco-systems around us so do our own ecosystems on our bodies change. The use of anti-biotics, pesticides and chemicals in the environment change our micro-organisms in ways we cannot control or predict. Perhaps the increase in asthma, allergies and cancers could be related to these changes, we are interdependent.

And so in conclusion, for me this encyclical is a mixed bag of the really very good, the good attempt but could do with more work, and the worrying. I

love the acceptance that the flourishing of the environment is inseparable from human flourishing. I applaud the inclusive language that talks about the whole of the environment, and not just climate change, and I love the firm stance that we are meant to be here and that we have a right to use and to co-exist with the rest of creation. So many NGOs would have us believe we are a scourge on the face of the earth and it would all be so much better if we would go away. That is of course utterly counter to our Christian beliefs. And I applaud the sections that urge us to find spiritual ways of gaining peace and satisfaction in life that do not depend on ever increasing consumerism. But my main concerns are the view of population, and I would like to see a richer approach to the natural world that sees the earth as so much more than a resource to be passed on.



I believe that natural world is a wondrous and awesome reminder of an audacious God who is the author of a universe that defies our understanding. So much is being created and destroyed out in the heavens as we speak. Energy pulsates through the cosmos at a terrifying magnitude. We are blessed inhabitants of a unique planet - the resources are just a part of the much greater whole.