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# **Knowledge and Valuation in Environmental Justice Struggles**

Eurig Scandrett

#### **Abstract**

The paper draws on the experience of adult education with community activists who are campaigning against environmental injustice. In common with environmental justice struggles throughout the world, all the communities experience negative economic externalities of capitalist development which is incommensurate with their own environmental valuation.

The course uses methodologies derived from Paulo Freire and popular education to seek to maximise the relevance of the curriculum to the political struggles in which the communities are engaged. Such methodologies generate knowledge of environmental justice derived from dialogue between the experiences of communities of struggle, the strategic campaigning of an environmental organisation, and the traditions of academic rigour of a university. This produces a discourse which contrasts with the policy discourse based on positivist research.

This paper draws on my experiences as coordinator of the course, analysed through liberation theology, which depends on the theologian's participation in political struggle as a precursor to theological reflection. Much ecological theology in the Christian tradition focuses on Creation narratives originating from Biblical texts whose ideological function seems to have been the justification of ruling class practices. Incommensurable valuation is an economic question which enables an alternative ecological theology to be developed from Prophetic narratives.

**Key words**: Environmental Justice, Popular Education, Liberation Theology, Friends of the Earth

This article explores how, in the context of a struggle for environmental justice in Scotland, the resources of Christian Theology can interact with a materialist political ecology to help analyse the role of a social movement. It will argue that two distinct discourses of environmental justice have developed in Scotland, one based around policy and neopositivist research, and the other based on a pedagogical approach to knowledge generation in a social movement.

First, it is important to contextualise myself as an interdisciplinary practitioner and because in both the theological and sociological approaches which I take, the context of the author is an important factor in shaping the outcome of the text. I have a Doctorate in scientific ecology and worked in

this field for a short time before moving into adult and community education. For eight years I was head of community action at Friends of the Earth Scotland, and I am now a lecturer in sociology at Queen Margaret University in Edinburgh, and a postgraduate student of Theology in the Liberation Theology strand of the Urban Theology Unit in Sheffield.

It may legitimately be asked, why apply a Christian theology analysis? Is not the sociological and political ecology approaches sufficient to interpret environmental justice discourses? There are several answers to this question. First, the reason is personal, and arises from my personal commitment and affiliation as a Christian and member of radical Christian communities<sup>1</sup>. Secondly, and more generally, there is a need to address Lynn White's influential thesis that Christian theology lies at the root of ecological destruction<sup>2</sup>. And finally, the liberation theology methodology which I adopt is pertinent to the sociological approach described. Liberation theology requires an ontological commitment to stand alongside the poor and oppressed in their struggle for liberation, in keeping with the understanding of the prophetic and Exodus traditions of the Judeo-Christian communities. In terms of modern environmental justice therefore, the demand is to understand sociologically, who are the oppressed and where is there struggle for liberation, and theologically to interpret this struggle from standing alongside it.

In 1998, following the election of a Labour government in the UK, and the support of the people of Scotland in a referendum, Scottish devolution became a reality. In the same year, Friends of the Earth Scotland (FoES. which had been independent of Friends of the Earth England, Wales and Northern Ireland since the 1970s), launched a campaign for environmental justice. A menu of policy demands was awaiting the new parliament and its executive when it took power<sup>3</sup>.

What was understood by environmental justice by FoES was summarised in the phrase 'no less than a decent environment for all, with no more than our fair share of the earth's resources'. The first part of this equation resonates most strongly with the origins of the environmental justice movement in the USA, the location of polluting facilities and lax implementation of environmental protection in communities which are socially disempowered. Unlike the USA, in Scotland, racialised communities did not seem to be disproportionately affected although very little research had been conducted into the social distribution of environmental costs (largely due to the absence at that time of an industrial pollution inventory). However FoES had accumulated a portfolio of campaigning activities in poor and working class communities who were fighting against open cast coal mines, landfill sites, incinerators, polluting factories and new road developments. The patterns seemed to be sufficiently strong to warrant the claim that significant numbers of people were being denied a decent

environment, and that these were disproportionately disempowered in other social areas  $^{\rm 4}$ 

The second half of FoES's campaign slogan, no more than our fair share of the earth's resources, came from more substantial research. Since the 1992 Rio UN Summit, sustainable development had become a policy objective of many governments and a focus of campaigning for environmental organisations. The Friends of the Earth confederation in Europe, in conjunction with the Wuppertal Institute in Germany, had taken a strongly redistributional approach to sustainable development by calculating the 'environmental space' for a number of limiting resources. Environmental space is the quantity of the resource which can be used by society without infringing the most limiting environmental constraint. At a scale at which it is reasonable to consider any given resource, a consumption rate may be calculated which 1, does not exhaust a limited supply, 2, does not exceed the natural capacity to absorb the waste stream or 3. does not cause unacceptable damage in extraction. For example, fossil fuels are an important global resource, the most significant limiting factor of which is the absorption of the waste stream - the carbon dioxide emissions into the atmosphere which are leading to climate change. Fresh water is an essential regional resource, limited in many regions by supply. Gold is a global resource of limited use value which causes high levels of local destruction in extraction.

Most significantly for the environmental space index is that it is expressed on an annual per capita basis, which means that for a global resource, all people have an equal right to a share of the use of that resource within its limiting constraint. The gap between the per capita environmental space and the actual per capita use of the resource constitutes the sustainability gap. Whilst details of the calculations are the subject of many debates, the order of magnitude of the sustainability gap is what is significant, with most European countries requiring a reduction in use for most non-renewable global resources of over 80%<sup>5</sup>.

For FoES therefore, environmental justice combined a redistributional claim for local siting of environmentally polluting activities such that the socially disempowered are not subject to unacceptable environmental conditions, with a global and intergenerational redistribution claim which requires a significant reduction in the per capita consumption of resources in the west.

The campaign for environmental justice was launched to coincide with the formation of the new Scottish parliament and lobbying subsequently focussed on the Labour-Liberal Democrat coalition which formed the first Executive in 1998. Whilst in the early stages, a few piecemeal successes for the campaign were obtained, the most significant policy shift was in 2002, following the election of Jack McConnell as First Minister. Jack McConnell is a labour politician with a history of sympathy with environmental

concerns, and indeed longstanding membership of FoES, as well as a good relationship with the then Chief Executive of FoES Kevin Dunion. In February 2002, McConnell gave his first speech on environmental issues which included reference to environmental justice.

Too often the environment is dismissed as the concern of those who are not confronted with bread and butter issues. But the reality is that the people who have the most urgent environmental concerns in Scotland are those who daily cope with the consequences of a poor quality of life, and live in a rotten environment – close to industrial pollution, plagued by vehicle emissions, streets filled by litter and walls covered in graffiti ... In the late 20<sup>th</sup> Century the big political challenge – and the greatest success I believe – for democrats on the left of centre was to develop combined objectives of economic prosperity and social justice. I believe the biggest challenge for the early 21<sup>st</sup> century is to combine economic progress with social and environmental justice. <sup>6</sup>

McConnell therefore embraced the first part of the FoES interpretation of environmental justice by locating it as a logical extension to the redistributional aspirations of the left. Moreover, later that same year, McConnell addressed a fringe meeting at the Johannesburg Earth Summit in which, despite his executive having no jurisdiction over international issues, he appeared to embrace the second half of FoES's environmental justice.

Since becoming First Minister of Scotland in November last year I have made it clear that our government must improve our performance towards sustainable development. And we now put our commitment to Sustainable Development in the context of environmental justice for the first time....

I am clear that environmental injustice is at its most shocking when you consider the situation of the developing world. The entire African continent is responsible for a mere 3% of the world's carbon emissions - yet it pays the same price in terms of climate change as the rest of the world - but with less capacity to protect its citizens from the impact of this climate change. At this scale, the greatest environmental injustices are between the developed and the developing world. <sup>7</sup>

Following the adoption of environmental justice with remarkable resonance with the FoES interpretation, a civil servant was appointed with responsibility for environmental justice, many non departmental public bodies were tasked with adopting environmental justice policies and several pieces of research were commissioned. The subsequent development of policy discourse on environmental justice within the executive until it was defeated in the 2007 elections, is the subject of discussions elsewhere<sup>8</sup>. Here it is sufficient to summarise that clear correlations between indices of deprivation were identified with industrial pollution, derelict land, river water quality and air quality. However a shift was identifiable that environmental justice was increasingly being understood as being concerned with local regeneration policy rather than economic or infrastructural development. Economic policy, enshrined in the 2004 policy paper A Smart Successful Scotland, regards environmental quality as a potential constraint on the higher goal of economic growth and entrepreneurial activity, rather than an issue of justice or redistribution<sup>9</sup>. Scottish Enterprise has continued to regard the environment as a distinct sector for economic opportunity, rather than a constraint on activities across the board.

FoES, meanwhile was focusing attention, not just at the policy discourse, but also at the activities of communities most affected by environmental damage. This included: training for communities in using planning legislation to prevent unwanted developments; training on pollution monitoring, interpreting scientific data and using pollution and health and safety legislation; integrating sustainability issues into community development activities; mobilising communities to negotiate 'good neighbour agreements' requiring improved environmental behaviour of companies near to where they live; forming connections between communities in Scotland and in Ecuador who are affected by oil related and other polluting industries; and providing sustained educational support for activists for the benefit of the affected communities in which they live or work: Agents for Environmental Justice

'Agents for Environmental Justice' supported local activists engaged in environmental justice campaigns in their communities. The idea of the 'community agent' is derived from the Indian subcontinent, also used in rural Scotland, whereby local people are supported by agencies to mobilise action in their own communities <sup>10</sup>. Agents were recruited from urban, rural, semi-urban, minority ethnic and workplace communities on the basis of their involvement in environmental justice struggles. They were provided with assistance in their local action, financial support, printed resources, opportunities for networking and an educational programme using the pedagogical approaches of popular education and leading to a Higher Education Certificate in Environmental Justice <sup>11</sup>. The original project ran from 2001 to 2004 and the certificated course continues to run as a part time distance learning course in partnership between FoES and Queen Margaret University.

The issues with which the agents are engaged included opencast mines, road developments, quarries, fishfarms, GM crops, housing, globalisation, refugee rights, alternative economic development and sustainable waste management. By using methodologies derived from Freire's *Pedagogy of the Oppressed* the course attempts to be relevant to these local issues and make real changes locally, but also to connect these to the wider political processes towards environmental justice <sup>12</sup>.

This approach draws on popular education, which has been defined as:

Popular education is based on a clear analysis of the nature of inequality, exploitation and oppression, and is informed by an equally clear political purpose. It has nothing to do with helping the 'disadvantaged' or the management of poverty; it has everything to do with the struggle for a more just and egalitarian social order.

The process of popular education has the following general characteristics:

- its curriculum comes out of the concrete experience and material interests of people in communities of resistance and struggle
- its pedagogy is collective, focused primarily on group as distinct from individual learning and development
- it attempts, wherever possible, to forge a direct link between education and social action. <sup>13</sup>

Thus the purpose of the educational work is to bring academic and other 'expert' or professional knowledge to service communities involved struggling for environmental justice. This is a dialogical epistemology. The knowledge content of the learning is derived from the body of research, theory and experience in the University and FoES in dialogue with the skills and knowledge of the people who live with and campaign against environmental injustice <sup>14</sup>. It also positions the educator at the point at which macro political economic faultlines are exposed through the emergence of social struggle <sup>15</sup>.

These social conflicts may be interpreted as a response to negative externalities associated with economic development. The traditional environmental economists' response to negative externalities is to attempt to internalise them by attaching a real or simulated monetary value to environmental goods. Once valued, environmental goods can be incorporated into cost-benefit analysis and recognised by market forces, such that the environment is protected through the normal activities of economic development. However, Martinez-Alier has pointed out that externalising costs (or cost shifting) is a normal activity of economic development, so

attempts to internalise negative externalities are doomed to failure <sup>16</sup>. On the contrary, the impact of internalising externalities is to attempt to neutralise incommensurable valuations of the environment by converting them into costs. This is experienced most acutely by those who are unable to demand a price for environmental goods which is sufficiently high to prevent exploitation, ie the poor and others with limited leverage on the market. Even those who are not poor might see their environment devalued by conversion to monetary value. For Martinez-Alier therefore, attempts to impose monetary values on environmental externalities which have an incommensurable valuation by a poor or disempowered group lead to social conflicts which he calls 'environmentalism of the poor'.

Methodologically therefore, it is significant that a popular education approach to environmental injustice places the knowledge, skills, culture and values of those who are experiencing environmental injustice and engaged in political struggle at the heart of a dialogical generation of knowledge. It also requires a tendency towards materialism, that roots analysis of this knowledge, including non-material valuation, in the environmental-economic conditions of production, and the material flows which this represents. In other words, economic growth which involves a flow of material or energy through a system also generates externalities. Increasing the productivity of this flow, or even increasing the efficiency of the materials used, do not reduce the externalities, and internalising the externalities only serves to devalue or mis-value incommensurable valuations of these externalities. The result is ever increasing damage to the environment and a constant pressure to shift these costs onto the poorest.

For myself as an activist and intellectual in the environmental justice movement, I am also a practicing Christian and draw on the resources of the Christian tradition. Since Lynn White's accusation that the Judaeo-Christian tradition lies at the root of environmental problems, it has become necessary to justify the use of such resources <sup>17</sup>. The nub of White's critique is twofold. Firstly, Christianity is at the same time dualistic and anthropocentric, which leads to an understanding of nature as both separate from and inferior to humanity. Secondly Christianity is based on a conception of linear time, with its origins in creation and an eschatological end-time, and this provides an ideology of constant progress necessary to justify technological innovation.

Theologians have responded in a variety of ways. At the heart of the critique and response is the interpretation of the Judeo-Christian creation myths, and especially the two verses from Genesis, from the Jahwist account 'The Lord God took the man and put him in the garden of Eden to till it and keep it / work it and take care of it'(Genesis 2:15) and the Priestly version 'fill the earth and subdue it; and have dominion ... over every living thing that moves upon the earth' (Genesis 1:28)<sup>18</sup>.

The response from theologians has tended either to focus on demonstrating a benign interpretation of these texts, or else to accept the damaging interpretation but to re-interpret the texts through the perspective of an ecocentric 'hermeneutic of suspicion' <sup>19</sup>. Both accept that the bible is anthropocentric and progressive However the former aims for a Christian creation theology in which these attributes benefit the environment, whereas the latter aims for a creation theology in which the text is purged of this bias.

However, Breuggemann points out that the creation myths as we have inherited them in the biblical texts, are likely to have served the purposes of reinforcing a hierarchical and naturalistic understanding of the world for the benefit of the ruling classes of the early Israelite monarchy<sup>20</sup>. Brueggemann identifies two trajectories in the Hebrew Bible, one the monarchic/creation tradition, and the other the Exodus/prophetic tradition. The fact that the latter tradition has survived despite its challenge to the ruling classes who retain control of the texts, is testament to the relative degree of success of the prophetic movements, especially at times of weakness of the ruling class, such as during and immediately after the exile. Duchrow and Hinkelammert have argued that the covenanting tradition, which introduced the Sabbatical and Jubilee years with their economic redistribution and degree of environmental sympathy, is a result of the prophetic movement forcing reforms from the post-exilic ruling classes under King Jeroboam<sup>21</sup>. Nalunnakkal has argued that this covenanting tradition provides an ecocentric corrective to the anthropocentrism of the prophetic tradition<sup>22</sup>. This is a somewhat optimistic interpretation of texts which, although allowing for a seventh fallow year for fields in which wild animals are permitted to feed, scarcely constitutes ecocentrism. More likely perhaps is that this covenanting tradition represents a class compromise in the religio-cultural laws as a result of the cognitive praxis of the prophetic movement<sup>23</sup>.

So perhaps Creation is the wrong place to look for a critical Christian response to the environmental crisis, whether from a revisionist perspective or a hermeneutic of suspicion, especially from what has been said concerning the environmentalism of the poor. However the prophetic tradition says little specifically about relationships with nature, and much of what is said is metaphorical. What is unsaid however is that socio-ecological conditions often lie at the heart of the socio-political issues which are addressed by prophets and in an agricultural society, this largely reflects changes to agricultural relations of production. Both the 8<sup>th</sup> century BCE which saw an intensity of prophetic activity, and the 1<sup>st</sup> century CE which saw the rise of the Jesus movement, were periods of rapid agricultural change associated with land acquisition and technical innovation in farming and bureaucratic techniques.

In the 8<sup>th</sup> century BCE, the divided kingdoms of Judah and Israel were exerting significant political power through what is now described as the

Middle East. Brueggemann argues it is a period of 'confrontation of kings and prophets' and between the historical legacy of David-Solomon versus that of Moses, reflected in the prophetic movements of Amos, Hosea, Isaiah and Micah. Chaney describes the political geography in terms of intensification of agriculture:

most freeholding peasants in Israel and Judah were located in the highlands. As many small, subsistence plots in this hill country were foreclosed upon and joined together to form large estates, a change in the method of tillage also took place. Upland fields previously intercropped to provide a mixed subsistence for peasant families were combined into large and 'efficient' vineyards and olive orchards producing a single crop for market ...

But the 'efficiency' of these cash crops came at a brutal cost to the sufficiency of the livelihood which they afforded the peasants who actually produced them. The old system of freehold had provided this peasant majority secure access to a modest but adequate and integrated living. The new system saw them labour in the same fields, but only according to the cyclical demands of viticulture and orcharding and at wages for day-labour depressed by a sustained buyer's market. During lulls in the agricultural calendar, they were as unemployed as landless."<sup>24</sup>.

Traditional agriculture in the uplands were designed to spread risk to the farmers, and not to accumulate surplus. Arable fields were used in rotation, cereal crops alternating with periodic fallow, supplementary grazing and leguminous crop growing. Sheep, goats and cattle were herded as a 'disaster bank on the hoof' which could make use of more marginal land and marginal labour (young and old). Animals carried surpluses into lean years and fertilised fallow fields. In amongst arable fields, and on steeper slopes, olives and vines provided storable fruits. This low level 'inefficient' agricultural production was good for spreading risk and surplus which is suitable for subsistence agriculture. Reduced surplus also had the benefit of reducing produce taxes.

However, throughout the 8<sup>th</sup> century, there was a shift in agricultural production towards olives (oil) and vineyards (wine) (and wheat, although this occurred earlier) driven by an increase in import/export trade (directly, due to increased trade demand for produce) and transit trade (indirectly, due to growing wealth of elite landowners / rulers). Ie agricultural production increased (by labour of peasantry) but converted into luxury goods (consumed by elite). This agricultural intensification hit the highlands hardest.

The new system in highlands maximised production and therefore produce (for trade) and rent and minimised protection against risk in variable

environment. It also led to greater dependence on centralised administration and market, increasingly located in urban centres. Under increased intensification in highlands, lean years led to borrowing from 'rent capitalists' using land as collateral.

V.J. John has similarly described the political ecology of agricultural intensification at the time of the Jesus movement in 1<sup>st</sup> Century CE Palestine<sup>25</sup>. Herod the Great (and to a lesser extent Herod Antipas) was notably ruthless at seizing estates and peasant lands. More especially, since Alexander the Great's conquest of Palestine (and subsequent Hellenistic influenced rule by Egypt), new Hellenistic technologies were introduced in both agriculture and bureaucracy. The latter made more complex bureaucratic layers possible and facilitated the development of cities, and increased control throughout society. The former involved techniques of irrigation, composting and fertilising, with the result of deforestation and increased use of the most marginal land.

Politically it is more complex, with Roman occupation, direct rule in Galilee, indirect in Judea, additional layers of power bases, tiers of retainers, puppet high priests, compromised parties, every group trying to balance the complexity of loyalties in patron-client relationships. This complexity would have increased pressure on the poor whose tax burden would be expected to support a more complex bureaucracy and both legal and informal taxation.

Drawing therefore on the prophetic, rather than the creation traditions of Judaeo-Christian sources leads to a different analysis. The thrust of prophecy is social change based on critique and condemnation of the existing order, lamentation for the suffering involved in that order and its inevitable collapse, and the utopian visioning of a new social order. More especially, the interests of the exploited poor are the primary focus of prophecy. A prophetic understanding of environmental problems therefore starts from the struggles of the victims of environmental injustice – ie those whose valuation expressed in political struggle against economic externalities, exposes the contradictions in political ecology. Only by ensuring that environmental valuation is tested against the experiences of those who see environmental damage from the perspective of the victim can a prophetic critique and vision emerge which is sufficiently urgent and challenging to vested powerful interests to ensure transition to environmental justice.

Researchers and policy makers are largely beneficiaries of the system which constructs environmental and other social injustices. There is therefore a responsibility not to allow the proximity to the benefits to distort the analysis. This can only be done by being as close as possible to the victims of the same system. It is not the case that the poor have the only, or even privileged access to knowledge or analysis.

The liberation theology methodology is not a descent into an environmental equivalent of workerism, or the reification of the victim.

However it is to acknowledge that for a historical analysis, "the poor have an epistemological advantage" Nor does it give primacy to local over universal knowledge. The condition of being a victim of environmental injustice does not restrict knowledge to the local, any more than being a beneficiary give privileged access to universal knowledge. The presentation of privileged localism masquerading as universalism has been exposed by diverse materialist critiques from Marxism and feminism to liberation theologies. Between a positivism which fails to identify interests in universal knowledge claims, and a relativism which sees nothing but local knowledges, lies the dialectical synthesis of knowledge from praxis. And the dialogical pedagogy of Freire remains the most significant innovation for constructing this knowledge which is accountable both to the rigours of universalist rationality and of the experience of those who struggle for justice.

#### Notes

- <sup>1</sup> I am a member of the Iona Community and the Ashram Community, both scattered communities of disciples attempting to live the radical demands of the political theology of the Jesus movement in a modern context.
- <sup>2</sup> L. White, 'The Historical Roots of Our Ecological Crisis', *Science*, 155, 1967, pp. 1203-1207.
- <sup>3</sup> Friends of the Earth Scotland 'The Campaign for Environmental Justice' 1999 accessed June 2007. www.foe-scotland.org.uk/nation/ej1.html.
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- <sup>5</sup> M. Carley and P. Spappens, *Sharing the World*, Earthscan, London, 1998. D. McLaren, S. Bullock and N. Yousuf, *Tomorrow's World: Britain's Share in a Sustainable Future*, Earthscan, London, 1998.
- <sup>6</sup> J. McConnell. Scottish Executive. *First Minister's speech on environmental justice* 2002a accessed 30/1/07 <a href="www.scotland.gov.uk/News/News-Extras/57">www.scotland.gov.uk/News/News-Extras/57</a>
- <sup>7</sup> J. McConnell, Scottish Executive, *Environmental Justice speech in South Africa* 2002b accessed 30/1/07 <a href="https://www.scottishexecutive.gov.uk/News/News-Extras/101">www.scottishexecutive.gov.uk/News/News-Extras/101</a>
- <sup>8</sup> W. Maschewsky Friends of the Earth Scotland. *Environmental justice in Scotland just words?: A view from outside* 2005 accessed 30/1/07 <a href="www.foe-scotland.org.uk/nation/ej">www.foe-scotland.org.uk/nation/ej</a> a view from outside.pdf. E. Scandrett, <a href="mailto:Environmental justice">Environmental justice</a> in Scotland: policy, pedagogy and praxis, <a href="Environmental Research Letters">Environmental Research Letters</a> (in press), 2007.
- <sup>9</sup> Scottish Executive, A Smart, Successful Scotland: Strategic direction to the Enterprise Networks and an enterprise strategy for Scotland 2004 accessed 30/1/07 <a href="https://www.scotland.gov.uk/Publications/2004/11/20246/46555">www.scotland.gov.uk/Publications/2004/11/20246/46555</a>

<sup>10</sup> A. Brown and A. Downie, 'Community Development Agents in Scotland – Quick Fix or Long Term Future?', *Scottish Journal of Community Work and Development*, Vol 5, pp. 17-30, 1999.

- <sup>11</sup> M. Wilkinson & E. Scandrett 'A Popular Education Approach to Tackling Environmental Injustice and Widening Participation', *Concept*, vol. 13, no. 1&2, 2003. E. Scandrett, T. O'Leary and T. Martinez, 'Learning Environmental Justice through Dialogue' in *Proceedings of PASCAL Conference: Making Knowledge Work*, NIACE, 2005.
- <sup>12</sup> P. Freire, *Pedagogy of the Oppressed*, Penguin, London, 1972.
- <sup>13</sup> J. Crowther, I. Martin and V. Galloway, *Popular Education: Engaging the Academy*, NIACE, Leicester, 2005, p. 2.
- <sup>14</sup> Agents for Environmental Justice and E. Scandrett, *Voices from the Grassroots*, Redressing the Balance Handbook 4, Friends of the Earth Scotland, Edinburgh, 2003.
- <sup>15</sup> See the educational writings of Ettore Gelpi, for example in T.D. Ireland, *Gelpi's View of Lifelong Education*, Dept. of Adult and Higher Education, University of Manchester, Manchester, 1979.
- <sup>16</sup> J. Martinez-Alier, *Environmentalism of the Poor*, Edward Elgar, Basingstoke, 2003.
- <sup>17</sup> White, op. cit.
- <sup>18</sup> All biblical references use *The Jerusalem Bible*.
- <sup>19</sup> Arguing for a benign interpretation tends to emphasise the responsibility of humanity to the environment in the service of God through, for example good stewardship (eg J. Moltmann, *God in Creation: an Ecological Doctrine of Creation*, SCM Press, London, 1985. See also discussions in A. Gnanandson, *Listen to the Women! Listen to the Earth*, WCC Publications, Geneva, 2005). Those who attempt a re-interpretation an ecocentric hermeneutic of suspicion include R.Radford Ruether, *Gaia and God: an Ecofeminist Theology of Earth Healing*, SCM Press, London, 1992; A. Primavesi, *Sacred Gaia*, Routledge, London, 2000; and other ecofeminists.
- <sup>20</sup> W. Brueggemann, 'Trajectories in Old Testament Literature and the Sociology of Ancient Israel' in Norman K. Gottwald and Richard A. Horsley (eds.) *The Bible and Liberation: Social and Political Hermeneutics*, SPCK, London, 1993, and *The Prophetic Imagination* (2<sup>nd</sup> edition), Fortress, Minneapolis, 2001.
- <sup>21</sup> U. Duchrow and F.J. Hinkelammert, *Property for People, not for Profit: Alternatives to the Global Tyranny of Capital*, Zed Books, in association with CIIR, London, 2004.
- <sup>22</sup> G.M. Nalunnakkal, *Green Liberation: Towards an Integral Ecotheology*, NCCI/ISPCK, Delhi, 1999.

<sup>23</sup> R. Eyerman and A. Jamison, *Social Movements: a Cognitive Approach*, Polity, Cambridge, 1991.

<sup>24</sup> M.L. Chaney, 'Bitter Bounty: the Dynamics of Political Economy Critiqued by the Eighth-Century Prophets' in Norman K. Gottwald and Richard A. Horsley (eds.), *The Bible and Liberation: Social and Political Hermeneutics* p. ???

<sup>25</sup> V.J.John, *The Ecological Vision of Jesus: Nature in the Parables of Mark.* CSS books and Bangalore, BTTBPSA, Thiruvalla, 2003.

<sup>26</sup> D. Soelle with S.A.Cloyes, *To Work and To Love: a Theology of Creation*, Fortress Press, Philadelphia, 1984, p.10.

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