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> The Challenge of Environment and Climate Justice: Imperatives of an Eco-Theological Reformation of Christianity in African Contexts

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Abstract:

This essay is asking the question whether and how eco-theological transformation and development from below has been (or could become) a major dimension within the work and life of both Pentecostal and African Independent Churches in the African continent. Acknowledging the criticism with regard to the historical role of colonial Christianity, being accused of leading to environmental degradation and exploitation, the essay argues that there are important alternative traditions both within biblical tradition and within traditional African wisdom. These traditions point to a more nuanced and positive appreciation of Christian religion as contributing to a view of nature as a place of God's presence and the environment as something to be protected. There is evidence that some of the newly flourishing churches in the continent, have an underestimated and under-realized potential of reinforcing environmental responsibilities and ecological commitments in their liturgies, their ways of reading the Bible as well as their practical pastoral ministries once a broad and cosmological understanding of the role of the Holy Spirit is maintained.

The Challenge of Environment and Climate Justice: Imperatives of an Eco-Theological Reformation of Christianity in African Contexts

Contexts - Current Challenges and Debates on Sustainability and the Role of Religions

Let me first congratulate Humboldt University for this promising and bold international research project exploring the potential and unique contributions of new players in African Christianity such as African Initiated Churches and thus moving beyond current cultural and political boundaries. For myself, being related to a Christian development agency, this is crucial, not only because development agencies need innovative theological-conceptual research which they cannot do just by themselves, but also because they are searching for alternative models of "development from below" (Ignatius Swart) and are interested to learn from more empirical research on how eco-theological transformation and development from below has been or could become a major dimension within the work and life of both African Pentecostal and Independent Churches.

The issue of ecological transformation and eco-theology is not a new theme in African Theological discourse. Already in 2008 the All African Conference of Churches (AACC) had begun to give prominent space to the water and environmental crisis at its general assembly in Maputo, Mozambique. At that time the theme "Environment and Spirituality", which was one of nine sub-themes, came on the agenda when a cholera outbreak in Zimbabwe illustrated how pollution, environmental degradation and inadequate water supply were affecting people in Africa. The Maputo Covenant from that assembly, which is still worth reading, stated: "We affirm that earth keeping is a crucial dimension of the church's mission and we need to confess of the times when the church has been unfaithful in this mandate or at worst, acted and taught against" (World Council of Churches 2008). At that assembly a representative of Ecumenical Water Network of WCC also stated: "The biggest resource of transformation is the people, the commitment of the community, not the money." Both statements are still valid and should guide us in our reflections. This paper is convinced that facing the gravity of current and future environmental challenges for the African continent and its implications for forced migration both within and beyond the African continent needs to become a top priority in the new working period of AACC as in many African (as well as other) churches the seriousness of the environmental challenges is not yet fully grasped.

In 2009 the South African Council of Churches (SACC) published a very profound statement "Climate Change – A Challenge to the Churches in South Africa", which still belongs to the best statements available on this topic on the African continent. It follows a certain principle in structuring the flow of arguments in several steps: Christian responses to climate change ("Acting" and the need for ecclesial analysis); Investigating what is at stake ("Seeing" and the need for social analysis); Identifying the root of the problem ("Judging" and the need for theological discernment); Responding to this vision which leads to new commitments (renewed acting). I will follow a similar sequence of "Seeing", "Judging", and "Acting" by structuring this contribution in:

- Contexts Current Challenges and Debates on Sustainability and the Role of Religions
- Texts Resources for Inspiring an Ecological Reformation of Christianity in Africa
- Visions Imperatives for Churches Engaged in Climate Justice and Ecological Transformation

A Critical Question at Stake: Is Christianity Responsible for the Environmental Crisis in Africa?

A West African Theologian once shared a story based on his personal biographical experiences which contains a crucial question we have to deal with in tackling issues of environmental degradation, eco-theology and the role of Christianity in Africa:

"The village in the North of Ghana where I grew up was located close to a forest and a river. In the forest from ancient times onwards the ancestors live, therefore it was sacred. In the river there lived the spirit of the water, therefore it was sacred as well. Then people of my village became Christians. Now, according to the new Christian worldview, there were no ancestors anymore in the forest and also there were no spirits anymore in the river. The taboos were disintegrating and disappearing. Instead the people started to make use and exploit both the forest and the water of the river for their own purposes. Today next to this village there is no forest left anymore and the river – it turned into a cesspool. Who has done a major mistake here? And for what reason?" (Emmanuel Anim of the Church of Pentecost Ghana, Accra, story transmitted orally)

The key question embedded in this narrative certainly is the following: Is the introduction of Christianity in Africa responsible for the environmental crisis? Is Christian tradition even the main root of environmental degradation?

This thesis is not new at all. Since the famous article written by the Presbyterian layman Lynn White in 1967 "The Historical Roots of Our Ecological Crisis" (White 1967) this perception has been reiterated by many scholars (e.g. Amery 1978; Münk 1987). White's article placed the blame for the ecological crisis squarely on Western Christianity as such. It is some kind of variation of Max Weber's famous analysis of the relationship between Christianity and capitalism. White's argument is that the Judeo-Christian doctrine of creation has led to the disenchantment of nature. Biblical religion has expelled the gods from the forests and streams once and for all. The biblical notion of "dominion" of humankind over nature has given rise to Western science which encouraged empirical investigation of the "book of nature" and thus also promoted the spread of exploitative attitudes to nature. Lynn White argued that "Christianity is the most anthropocentric religion the world has seen" (White 1967, 1205) and concludes that "Christianity bears a huge burden of guilt".

Several African scholars have taken up some elements of Lynn White's provocative thesis (although a serious African empirical research on the influence of the arrival of Christianity in the African continent on attitudes relating to nature and the environment is not yet known). The African scholar from Malawi, Harvey Sindima, for instance in his essay "Community of Life: Ecological Theology in African Perspective" (1990) in following some of the arguments of Lynn White argues that the original and pre-Christian African concept is about "the bondedness of life", a view based on the integral whole of life being interconnected with spiritual and material realms relating to each other. However, he argues that in the process of colonial expansion, this spiritual worldview which was traditionally dominant in African cultures was replaced and superseded by mechanistic worldviews originating from western, "enlightened" cultures of modernity. He continues to argue:

"In this era, nature was reduced to mathematics or transformed into quantitative physical phenomena which could be grasped by rationality. Nature was purely other and merely material to be subjugated and manipulated. It had only instrumental value, determined by the extent to which people could use it. With this vision of nature in place, the stage was set for the rise of materialistic philosophy and its attendant manner of life. This way of life has captivated much of Western civilization ever since and has been exported

to all places this civilization has gone in its quest of material resources and to fulfil its expansionist philosophy." (Sindima 1990, 139)

Sindima concludes:

"For some time the people of Africa have been influenced by a cosmology inherited from the West: the mechanistic perspective that views all things as lifeless commodities to be understood scientifically and to be used for human ends. Yet these people have an alternative way of looking at the world, an alternative cosmology, which can better serve their needs for cultural development and social justice in an ecologically responsible context. This alternative way might be called a life-centered way, since it stresses the bondedness, the interconnectedness of all living beings." (Sindima 1990, 137)

Thus, African scholars like Sindima – and he is not the only one – view the introduction of Christianity in Africa as a factor which weakened or impaired human ability to interpret and reconstruct the systems of values and norms that give meaning to the lives of Africans. But the belief that scientific progress would eliminate misery in the world by and large did not work out in reality. The alliance of progress, science, and technology has not eliminated misery.

Therefore, the recommendation expressed by Harvey Sindima and others is that African Christianity nowadays has to rediscover traditional African values and rethink Christianity in a non-Western, African way. Thus, African eco-theologies embedded and implicitly articulated in African Initiated Churches potentially present an attractive, feasible and necessary way out of the ecological dilemmas presented by the current trends in African modern culture.

It is the key question of this paper, to see whether there are indeed traditional African world views incorporated in the life and worship traditions of African Initiated Churches that have the potential of offering substantial solutions for environmental challenges on the African continent or at least can offer motivational energies for ecological commitments and how their potential can be strengthened.

Which type of African Christianity is most promising, open and relevant for the promotion of ecotheological transformation and awareness building on the African continent? Are these the Independent Churches, the Charismatic or the Pentecostal Churches? Or are these the historical main line churches? Are these more the ancient Orthodox African churches, the Roman Catholic Churches or the Protestant Churches? Where are the key drivers for an eco-theological Reformation of African Christianity? Or are all the different streams and types of churches within African Christianity – without giving a predefined preference or priority to one of them – equally challenged to rediscover the ecological potential and religious values contributing to proper ecological stewardship and a different kind of attitude to nature and therefore have a complementary and common task for the ecological Reformation of African Christianity?

Even a quick look at current African theological discourses provides evidence that much more serious theological and empirical research is needed to deepen both historical, systematic, cultural as well as ethical insights into the ecological assets of African Christianity. Although some major work has been done on the general relation between Christianity and eco-theology (Conradie 2006), empirical research on African Initiated Churches and their potential contribution for eco-ethics is still in its initial stage. Therefore, we can only gather some very first insights and hints on this topic but cannot explore this in full detail as the task is huge.

Before taking up swift and generalizing statements on the sole responsibility of the whole of Christianity and "the West" in general for the environmental crisis of this world, one needs to look with more scrutiny

and detailed research into some of the complex historical as well as theological layers of the challenge. We first need to take into consideration that there have been other scholars who have seriously refuted and contradicted the thesis of Lynn White, that Christianity as such is the root cause of environmental degradation. Several scholars have accused him of over-generalising and over-simplifying historiographically and theologically. Things are not as blunt and simple as he had stated them, and more nuanced views are needed – both with regard to Christian history in general as well as with regard to African Christianity in particular. Scholars have argued

- that exploitative attitudes to nature have other causes and roots than just Christianity (one might
 refer for instance to the Greek dualism between body and spirit; to pre-Christian attitudes to nature
 in other cultural traditions, for instance in Chinese cultures evident in Chinese commerce and trade
 even today where some complaints about destructive impacts of Chinese business in Africa can be
 heard; to the major impact which socio-economic changes had in the period of industrialization and
 mechanization of labour);
- that the Biblical witness on relationships to nature cannot be reduced to just the "*dominium terrae* tradition" (and even this is not identical with technical sub-domination of the earth by the industrialization);
- that Christianity did not harmoniously pave the way to scientific and technological revolution as much of the Enlightenment traditions were achieved in struggling against Christianity;
- that Lynn White deals with Christianity indiscriminately and generalizing all traditions of Christianity
 and fails to realize the only partial validity of his claims: what might be possible to be stated on
 certain phases or aspects of western Christianity, might not at all be applicable and justifiable to be
 equally affirmed with regard to Ancient forms of Orthodox Christianity or contemporary non-western
 forms of Christianity both within Africa as well as on other continents (see on the debate within
 African theological discourse: Conradie 2016; Conradie et al. 2014, 120).

The counter-thesis to Lynn Whites convictions expressed by many later scholars therefore reads: Christianity does have ecological wisdom traditions embedded in Biblical witness and in the tradition of the church. Therefore, rightly interpreted Christianity cannot be blamed as being the "*causa principalis*" of all of the global environmental crisis, but certainly is both part of the problem but also one major part of the solution to it – as it can offer major insights to ecological transformation and awareness building from re-reading ancient biblical tradition.

It might be more appropriate, prudent and more nuanced therefore to argue that Christian traditions show some ecological ambiguity: some elements in Christianity have reinforced attitudes which can legitimate violent subjugation of nature and exploitative attitudes. Other traditions in Christianity and the Bible show admiration for the mystery of God's love in the beauty of creation and attitudes of care in solidarity with creation (for Biblical ecological wisdom traditions see Habel 2001).

Therefore, we should not throw away and bluntly reject Christian traditions as anti-ecological in general. Instead our task would be to apply some new ecologically sensitive biblical hermeneutics in order to retrieve some of the ecological wisdom traditions in the Bible in efforts to re-read some major biblical passages, including the problematic ones, in order to come up with a consolidated eco-theological approach for contextual Bible reading today (on the eco-theological debate in Biblical sciences see: Horrell 2010, particularly chap. 2).

Reading the Signs of the Time – The Interrelatedness of Environmental Degradation, Global Climate and Economic Injustice, Bad Governance and Unlimited Power of TNCs in African Contexts

In reading the contemporary context and the signs of the time related to issues of environment and climate justice we need to take a brief look at actual challenges concerning the environmental situation in the African continent. It is often said that the African continent is the most religious continent in this world, however it is also the poorest in terms of accessibility of livelihoods and the highest ranking in corruption and one of the continents most affected by land degradation and environmental pollution. This is also confirmed by a recent *Greenpeace Africa Report* which was published at the occasion of the World Environment Day in 2016 (Bounaim 2016). Why is this so?

The intersectionality of economic injustice, environmental destruction, bad governance and unlimited power of external transnational corporations (TNCs) certainly does play a significant role. It is striking and irritating to see that while the African Union has agreed upon an African Convention on Nature and Natural Resources already in 1968 (United Nations 1968), the legacy of colonial rule and the influx of transnational corporations as well as the lack of proper Good Governance and Corporate Political determination within the AU have so far prevented African governments to set up proper and sufficient mechanisms to ensure that this crucial convention (which was modified in 2003; see African Union 2003) can be properly updated and that its provisions can be enforced and put into practice (Lubbe 2015).

A senior scholar from Nigeria, Akin L. Mabogunje (Chairman of the Development Policy Center in Ibadan, Nigeria, and a former professor of geography at the University of Ibadan), has argued in the "African Technology Forum" already in the 90s:

"Sub-Saharan Africa suffers from some serious environmental problems, including deforestation, soil erosion, desertification, wetland degradation, and insect infestation. Efforts to deal with these problems, however, have been handicapped by a real failure to understand their nature and possible remedies. Conventional wisdom views the people of this region as highly irresponsible toward the environment and looks to the international community to save them from themselves. It tends to blame all of the region's environmental problems on rapid population growth and poverty. Yet, there is no conclusive evidence that Africans have been particularly oblivious to the quality of the environment, nor has the international community shown any genuine concern for it until recently." (Mabogunje 1996)

Clearly, protecting the environment of Sub-Saharan Africa is an issue that needs to be examined more carefully and incorporated into an overall strategy of sustainable economic development (Nana-Sinkam 1995).

Of particular urgency are four major ecological challenges:

- Loss of fertile soil and degradation of territories by erosion and draught, as spelled out in a recent FAO Report: Many African countries have already lost a significant quantity of their soils to various forms of degradation. Many areas in the continent are said to be losing over 50 tons of soil per hectare per year. This is roughly equivalent to a loss of about 20 billion tons of Nitrogen, 2 billion tons of Phosphorus and 41 billion tons of potassium per year. Serious erosion areas in the continent can be found in Sierra Leone, Liberia, Guinea, Ghana, Nigeria, Zaire, Central African Republic, Ethiopia, Senegal, Mauritania, Niger, the Sudan and Somalia.
- Reduction of rainfall, melting icecaps on Mount Kilimanjaro, river draining, drying out of major lakes (like Lake Chad: reduced in its coverage area about more than 90%) as consequence of the global

climate changes – all of this leading to increased food insecurity and reduction in local fishery industries, degradation of pasturelands (Mugambi 2016, 1117 ff).

- Deforestation and loss of biodiversity in African lands (https://helpsavenature.com/environmentalissues-in-africa, accessed May 10, 2019)
- Dramatic reductions in local food production and application of land policies which encourage export of cash crops in African export countries while at the same time suffering internally from undernourishment (Mugambi 2016, 1124)

While African governments try to stabilize national situations, experts for several years have spelled out the huge challenges, as summarized in the "African Ecological Futures Process" (Pegasys and World Wide Fund for Nature (WWF), n.d.):

- Africa is growing rapidly. Its growth has the potential to draw millions out of poverty, expand the ranks of the global middle class and act as a site and source of new global economic growth. While the basis for the continent's development is increasingly broad, the primary and extractive sectors still serve as a major source of export earnings.
- Predictions of Intergovernmental Panel on Climate Change (IPCC) that Southern Africa as well as
 parts of the Horn of Africa might experience a significant reduction of rainfalls (10% less in 2050,
 while rainfalls could increase in parts of the Sahel) and that due to general warming potential
 evapotranspiration over the African continent is projected to increase by 5–10% by 2050 are far from
 being fully understood regarding their dramatic consequences for agriculture, bio-diversity and
 fertility on African lands.
- As Africa has grown, its ecological resource base, on which future generations depend, is being eroded. Research by WWF identifies that the Ecological Footprint of all African countries increased by 240% between 1961 and 2008. Since 2015 Africa is projected to be in "bio-capacity deficit," i.e. when the footprint (impact of a population that uses resources) is greater than the capacity of ecosystems to produce useful biological materials and absorb waste materials generated by humans.
- If Africa emulates current production and consumption models then compelling evidence suggests
 that its ecological system will be undermined and the quality of growth on the continent limited very
 soon. Hence, research particularly on the future of rural Africa will be of great importance in the
 coming decades (on a major research project in Namibia "Future Rural Africa: Future-Making and
 Social-Ecological Transformation", see: https://www.crc228.de/).

For these reasons, Africa needs to find a way to shift onto a new and sustainable growth path – one that meets the needs of today, without limiting the opportunities available to future generations. To ensure sustainable growth Africa needs to understand and respond to the erosion of its ecological base (African Development Bank and World Wide Fund for Nature (WWF) 2015).

The interrelation between rapid population growth and overuse of natural resources, urbanization as well as possible lowering of environmental standards is far from being fully explored – but prospects seem to be quite dramatic: By 2050, a quarter of the world will be African, with the continent's population likely to rise from 1.2 billion today to 2.5 billion in 2050. By 2100, half the world's children will be African. Child populations on other continents are likely to decline or stagnate. Africa's child population currently stands at 580 million, which is four times larger than Europe's child population.

To cope with this growing population, Africa needs another 5.6 million frontline health professionals – three times current numbers – to meet minimum standards set by the World Health Organization, and another 5.8 million teachers to meet international education standards (Allison 2017).

Once we take a first general look at the ecological role of African's Christianity however, with regard to the Christian potential to counter environmental degradation and injustices, the result for some African authors seems rather meagre: The senior South African scholar Ernst Conradie has argued: "In many contexts Christians are not environmental activists and environmental activists are not Christian" (Conradie 2012). Why is this so?

The Nigerian scholar Obaji M. Agbiji (2015) has argued that faith communities in sub-Saharan Africa have only recently and gradually developed awareness of the dangers of ecological injustice and its connection with socio-economic injustice. For nothing much has been achieved in many churches – at least as observed in the Nigerian ecclesial community in particular – with regard to developing a strong Christian ecological orientation and activism which could stem the devastating impact of human beings on the environment. Only in 2010 within CAN (Christian Association of Nigeria) there has been a first small beginning of deepening a new awareness of ecological responsibility which was highlighted by a historic paper of Ime Okopido on "Church and Environment" arguing fervently that ecological injustice has a direct link with socio-economic injustice and the neglect of this interrelation will always result in more poverty and this automatically being accompanied by a negative impact on the environment. It would be an interesting exercise to find out from different African partner churches which major breakthrough they remember in terms of eco-theological reflections and eco-ethics within their national or denominational church contexts to claim national attention and to enter centre stage in their innerecclesial or public debates: What examples do you remember from your own church contexts? When and where did your church first come up with a major paper, keynote addresses or synodical declaration to articulate eco-theological considerations and codes of conduct on eco-ethics in the last 10 or 15 years? Or did your church not have a "coming out" yet in this field at all and thus a major breakthrough in terms of ecological responsibilities still needs to be worked for?

The Emergence of "Putting My Nation First" Ideologies as a Blow to Global Ecological Consensus – The Need for an Ecumenical Anti-Populism Coalition of those Prioritizing Common Survival and Multilateralism

Currently it has not become easier to take a strong stance on eco-theological responsibilities in international circles and ecumenical networks of churches. What is making it more difficult today for eco-theological concerns to gain broader popular and political support are remarkable changes in the global political landscapes marking our contemporary context: There have been serious changes of orientation and priorities in global geo-politics in the US administration and government – still an allegedly predominantly Christian country – which unexpectedly and to the dismay of many left the agreed Paris Summit Commitments on reducing global CO2 emissions and the related world climate treaty leaving the majority of other states puzzled and angry. This presents a dramatic change in global political architecture with European nations and China now appearing more reliable partners for global ecological consciousness and common ecological action than the former leading nation of the so-called West. But what is even more disturbing is that this is only the tip of the iceberg in terms of a growing influence of nationalistic "putting my nation first" ideologies which in subtle and overt ways are pervading governments and changing political mentalities both in the North as well as in some countries in the South while at the same time practising an overt negation of the scientific insights in the human conditioning of global climate change. It seems to be forgotten that the effects of global climate change and the adverse consequences of environmental degradation do not stop at national borders, but are always trans-national and transcend ethnic, national and religious boundaries. Multilateralism and global governance which are most urgently needed in confronting environmental challenges of humanity

get more and more under pressure and are diminished in plausibility as right-wing populist governments are more interested in short-term electoral gains and power games than in working out sound solutions with a global, multilateral and mutually binding outreach.

The alleged assumption that the wellbeing of one nation – within the limited frameworks and planetary boundaries given to all of humanity on this one planet earth – cannot be achieved and sustained just by safeguarding its own narrow-minded national interests and at the expense of others is the most dangerous illusion of this beginning 21st century.

As we are celebrating 70 years of the founding of the World Council of Churches (WCC) in 2018 and come from the historical experience of the ecumenical movement which emerged in the shadows of two global world wars with the core convictions: "We will stand together as we belong to Christ", and "War should never happen again as it is contrary to the will of God." We should be bold and strong enough to affirm the ecumenical nature of global collaboration on issues of climate justice and the cleaning up of our planet. There is no alternative than to affirm a common responsibility of all nations with regard to achieving a new model of sustainable development as set out in the UN Agenda for Sustainable Development from 2015 ("SDG Goals for 2030").

Churches since the beginning of their history have provided spaces of hope and resistance against the mood of ecological despair and ignorance, lethargy and apathy which are also spreading today. Churches therefore need to stand together against the forces which promote nationalist populism and a new trend towards global de-solidarization – which is spreading like ugly wildfire. Churches have to be particularly watchful not to allow Christian values, symbols and rituals to be instrumentalized by right-wing populist political leaders (it is worrying that some of the western populist leaders continue to be surrounded by important religious leaders). But it is also encouraging that some churches have assembled again already - in order to stand up against the ideological temptations of narrow-minded right-wing populism, xenophobic sentiments and "my nation first" ideologies. And many do this in direct line with the early beginning of the ecumenical movement where this was a strong commitment already (e.g. the international consultation "Churches as Agents for Justice and Against Populism", see: Lutheran World Federation, 2018a, 2018b). The ecological Reformation of Christianity therefore is a joint task of churches in the African continent, churches in Europe, churches in America and in other parts of the world and we should not allow other forces to tear us apart in the common and complementary efforts for a fundamental shift towards more ecological responsibility which is imperative for the common survival of all. We can and should learn a lot from each other and can join our forces!

The Ecumenical Learning Journey – From Limits to Growth Towards a New Concept of De-Growth Oriented Sustainability

Recalling the significance of the ecumenical journey which started 70 years ago during the Amsterdam assembly 1948 we cannot but also be encouraged by the precious memory of the tradition of ecumenical social thinking, which has a long and deep history and heritage that can inform our current eco-theological deliberations and reflections. Organized efforts for joint ecumenical social thinking actually started already prior to the founding of World Council of Churches (WCC) with the series of world mission conferences and their search for Christian models to provide order and justice to societies (particularly the conference in Jerusalem 1928, and World Conference on Life and Work, Stockholm 1925 and Oxford 1937). It is not well-known but should be taken up and researched by younger African theologians that the WCC – almost 20 years before concepts of sustainability were affirmed politically at a global level at the global conference in Rio de Janeiro (1993) – had developed a sound eco-theological

reflection and critical approach to the traditional concept of development which was coupled with the idea of unlimited growth and depletion of natural resources (Stierle, Werner, and Heider 1996, chap. 6). Already in a consultation in Bucharest in 1974 the critique of the Club of Rome (1972) as articulated in its report "Limits to growth" was substantially received and discussed in ecumenical social thinking. The notion of a new index for "quality of life" was suggested which should move beyond the traditional measurement of GNP which still dominated economic circles (see for instance Bedford-Strohm 2007).

The first ever ecumenical definition of "sustainability" as articulated in the WCC Bucharest 1974 conference is worth noting again:

"The goal must be a robust, sustainable society, where each individual can feel secure that his quality of life will be maintained or improved. We can already delineate some necessary characteristics of this enduring society. First, social stability cannot be obtained without an equitable distribution of what is in scarce supply and common opportunity to participate in social decisions. Second, a robust global society will not be sustainable unless the need for food is at any time well below the global capacity to supply it, and unless the emissions of pollutants are well below the capacity of the ecosystem to absorb them. Third, the new social organization will be sustainable only as long as the rate of use of non-renewable resources does not outrun the increase in resources made available through technological innovation. Finally, a sustainable society requires a level of human activity which is not adversely influenced by the never ending, large and frequent natural variations in global climate." (quoted in Vischer, n.d.)

One year later, in 1975, the concept of the sustainable society was adopted by the WCC Assembly in Nairobi and has been a firmly established part of ecumenical vocabulary ever since. It was in the so-called conciliar process launched in Vancouver 1983 that the ecumenical discourse affirmed the inseparable relatedness of the dynamic concepts of justice, peace and integrity of creation as guiding common framework of action for the churches. This also means that the historic peace church movement, the ecological grassroots movements and the movement for development and liberation should not see themselves as separate but act and learn together.

In 1990 in the Seoul Convocation on Justice, Peace and Integrity of Creation which was culminating the conciliar process two of the ten final affirmations dealt with issues relating to eco-theology and ecological justice. Of particular interest is Seoul Affirmation No VII, which affirmed that all of "creation is of God and the goodness of God permeates all creation, we hold all life to be sacred" and therefore churches should

"resist the claim that anything in creation is merely a resource for human exploitation. We will resist species extinction for human benefit; consumerism and harmful mass production; pollution of land, air and waters; all human activities which are now leading to probable rapid climate change; and policies and plans which contribute to the disintegration of creation." (Stiftung Oekumene, n.d.)

Of paramount significance is also Seoul affirmation No VIII which focuses on the unique role of natural resources such as water, soil and land and declares them to be global commons, not personalized properties:

"We affirm that the land belongs to God. Human use of land and waters should release the earth to regularly replenish its life-giving power, protecting its integrity and providing spaces for its creatures. We will resist any policy that treats land merely as a marketable commodity." (Stiftung Oekumene, n.d.)

In 2009 the WCC released a major official statement on eco-justice and ecological debt which summarized some of the core-convictions developed, bringing together the "limits to growth" debate, the concept of "just, participatory and sustainable societies" (Nairobi assembly 1975) and the so-called AGAPE process (Alternative Globalization Addressing People and Earth) which followed in the 80s: It summarized ecumenical key convictions, like that "the era of 'unlimited consumption' has reached its limits", that a new understanding of natural resources needs to be developed, moving beyond labelling them simply as means of exploitation and that "human existence is utterly dependant on a healthy functioning earth system" (World Council of Churches 2009).

It had become clear in the period towards the 90s that ecumenical social ethics has irreversibly moved away from the concept of unlimited growth type of development as it has moved on (with Edward Abbey) in affirming in a statement made during the WCC Assembly in Canberra in 1991: "Growth for the sake of growth is the strategy of the cancer cell." A regenerated eco-theological learning movement within African Christianity should take hold of deep insights in the history of ecumenical social ethics which was developed in the last 50–60 years and in which African churches played a significant part. We do not have to start from scratch but can build on the work of former generations of eco-theological thinkers in global ecumenism.

The Political Learning Journey – The SDG Agenda 2030 as both a Political Chance for Sustainability Concepts as well as a Document of Internal Tensions

Another element which needs to be mentioned in terms of shaping and influencing our current contexts regarding the articulation of new visions for sustainability certainly is the UN Agenda for Sustainable Development (SDG Agenda) which was passed in 2015, following the UN Agenda on the Millennium Development Goals (MDG). This on the one hand is major leap forwards as for the first time all UN member states have agreed to articulate a binding framework vision for how to understand sustainability goals. It is also remarkable that the SDG Agenda for the first time of a major UN document leaves behind the distinction between "developing" and "developed" countries as all of the 17 goals of this agenda do not refer just to one category of countries (like the MDG Agenda had referred only to countries in the North), but to all of the countries, disregarding their economic strength and global position. It is also important to mention that this UN Agenda has taken up the key term of "transformation of this world" which for decades was also used in ecumenical statements and which is rather close to the biblical concept of *metanoia*, meaning a comprehensive change of orientation, values and political concepts so as to adhere to a new guiding principle.

The African Union in 2013 developed a similar vision called "AU Agenda 2063" which at least in its first major goal also mentions sustainability in talking about the vision of "[a] Prosperous Africa, based on inclusive growth and sustainable development" (https://au.int/agenda2063/overview).

The tracking process on Agenda 2063 and the Sustainability Development Goals, which was published by United Nations Development Program (UNDP) and assesses the African continent's performance in domesticating and implementing the two development frameworks since their adoption in 2013 and 2015, respectively, however reveals serious challenges still being ahead (African Union et al. 2017a). The most recent Executive Summary of the "2017 Africa Sustainable Development Report" amongst several items points to three major results, while limiting itself to only six out of 17 goals of the SDG Agenda (i.e., Goal 1 (End Poverty); Goal 2 (Zero Hunger); Goal 3 (Good Health and Well-being); Goal 5 (Gender Equality); Goal 9 (Industry, Innovation and Infrastructure); and Goal 14 (Life below water)):

- Slow progress made in reducing poverty and inequality owing to limited decent employment opportunities and weak social insurance mechanisms;
- Rising food insecurity and undernourishment are a growing concern in Africa: Some 355 million people in Africa were moderately or severely food insecure in 2015;
- Globally, the proportion of fish stocks that are at biologically sustainable levels is declining.

It also states frankly: "Approximately six out of every ten SDG indicators cannot be tracked in Africa due to severe data limitations." Therefore, there are no data and trends available on a wide range of parameters pertaining to environmental sustainability. Dimension 7, defined in the AU Agenda 2063 as "Environmentally sustainable climate resilient economies and communities", does not yet have a clear set of indicators and reliable data on the African continent's level (African Union et al. 2017b).

This is even more deplorable as the Club of Rome Report 2017 has revealed that there are inbuilt tensions within the SDG Agenda which are not yet sufficiently thought through in terms of basic assumptions concerning the understanding of growth and its relationship to sustainability. The Club of Rome Report 2017 has observed that it is not sufficiently reflected that the world once it would completely reach major social and economic goals of the SDG Agenda within the current concepts of growth as spelled out in goals Nos 1 to 10 would never have the chance of reaching essential goals which are formulated in the ecological section of the SDG Agenda, namely in goals Nos 11 to 15 (for the meaning and significance of the numbering of the 17 goals see the list of all the SDG goals on the official UN website - Goals 1-11 focus more on economic objectives, Goals 11–15 more on ecological objectives: https://www. un.org/sustainabledevelopment/development-agenda/). Thus, there is a fundamental tension or even contradiction between the social/economic and the ecological goals of the SDG Agenda. The fact that they are not harmonized yet indicates a hidden fundamental political ambiguity even within this most advanced UN Agenda and points to a hidden conflict within the global political discourse which centres around the concept of growth and sustainability: Is the completion of major economic and social goals dependent on an unlimited increase of the exploitation of natural resources, or is the reduction of the use of natural resources the pre-condition for formulating more modest and less growth-oriented goals also for social and economic development (Wijkmann, Weizsäcker, and Club of Rome 2017, 90)?

It is here that the specific role of Christian churches as well as Faith Based Organizations (FBOs) and other religious communities both within and beyond the African continent comes into play. This is because the SDG Agenda in the long run cannot be achieved without clarified concepts of sustainability and growth: Governments are dependent on broad approval and motivation of the people to follow a paradigm shift in social development and ecological transformation. The moral and spiritual basis for a new concept of development can only come from bodies which reach deeper then secular governmental agencies, as fundamental values and spiritual orientations are at stake. Here is the task for an ecologically sensitized African Christianity with its major ecumenical instrument of the All African Council of Churches (AACC) to enter into serious political dialogue with the African Union (AU) and with other spiritual communities within Africa.

Texts – Resources for Inspiring an Ecological Reformation of Christianity

The Call for an Ecological Reformation of Christianity – Rereading the Reformation Heritage as a Protest Movement Against Human Greed and Corruption

What is behind the very title of this section is a reference to a famous corporate statement produced as a consequence of the Busan assembly of WCC and its work on ecological justice during a major

international consultation held together with African theologians in an orthodox environment in Greece: It was in 2016 in the Greek Orthodox Academy of Volos that after an intensive conference of ecotheological experts from several different denominational traditions a "Manifesto for an Ecological Reformation of Christianity" was published (World Council of Churches 2016). It reads:

"At the beginning of the 21st century, it is clear that many Christian communities all over the world have discerned the need for an ecological reformation of each Christian tradition in every geographical context. This is expressed in the ecumenical prayer: Come, Holy Spirit, renew your whole creation! The need for an ecological reformation of all Christian traditions is of course manifested in different ways in various parts of the world. The pain impulses associated with ecological destruction have been registered especially in those areas that lie on the periphery of current constellations of economic power. The call for an ecological reformation of Christianity has come with particular urgency from Christians in such areas (the Pacific, Africa, Asia, Latin-America) as they are more exposed and vulnerable. This call is echoed by churches which belong to (mainly protestant) countries in the global North which have contributed heavily to the exploitation of natural resources, industrial production and a style of consumption and which causes environmental degradation." (Conradie, Werner, and Tsalampouni 2016)

The Manifesto defines Ecological Reformation of Christianity, explicitly pointing to the Reformation Jubilee, celebrating its 500 years not as a short-term single measure, but as a comprehensive and rather demanding long-term process:

"Such an ecological reformation cannot be restricted to a recovery of a theology of creation or a call for responsible stewardship. It calls for reflection, discernment, prayer and a transformation of Christian practices that may be harmful to others, to all God's creatures. It also calls for a rereading of the canonical biblical texts, a critique of the environmental impact of specific Christian traditions and practices, a retrieval of historical insights, figures and practices, a reinvestigation of the content and significance of the Christian faith, a reconsideration of influential symbols, a renewal of Christian communities and a transformation of the ministries and missions of the church." (Conradie, Werner, and Tsalampouni 2016)

Thus,

"the environmental crisis has therefore not only led to the claim that Christianity could and should make an important contribution to a more adequate understanding of the role of humanity in nature. It has also led to calls for a critical reassessment of the Christian faith itself." (Conradie 2006, 65–66)

An ecological Reformation of Christianity also takes up again an essential feature of the "*ecclesia semper reformanda est*" which lives in the promise to be constantly renewed in spirit and in practical obedience. An ecological Reformation of Christianity reminds us that classical Reformation essentially was a liberation movement for the Gospel to be fully enacted and realized in its potential. European Classical Reformation was a protest and liberation movement against the combination of a religion of fear, superstition and idolization of human greed and systemic spread of corruption. In a similar manner today's Ecological Reformation of Christianity should liberate contemporary Christianity from becoming complicit in the cult of economic greed, unlimited material growth and structural violence against nature, animals and plants in the 21st century. Was the classical European Reformation in its historical period about a liberating "conversion to Christ", in a similar manner the Ecological Reformation of Christianity and the classical European Reformation in its historical period about a liberating "conversion to Christ", in a similar manner the earth", a radical turn

to "re-earthing" our identities as bonded with that of all creation instead of being defined over against nature.

In linking today's renewal of eco-theological awareness to the core concern of classical Reformation heritage we are reminded of the threefold motto which the Lutheran World Federation had put on all the celebrations on 500 years of Reformation: "Liberated by God's Grace: Salvation – is not for sale; Human beings – are not for sale; Creation – is not for sale" (https://2017.lutheranworld.org/content/ liberated-god%E2%80%99s-grace-131). The core message eco-theological reflection brings into the debate today is that there are limits to the commodification and commercialization of all dimensions of life: This is a status confession for Biblical Christianity in a situation where the powers of the market and Transnational Corporations (TNCs) take over everything. The statement that creation is not for sale implies a rediscovery of the significance and implications of the first article of the Apostolic Creed seen in the light of the cosmological salvation through Christ: our confession of God as the almighty Father, Creator of Heaven and Earth. The LWF confirms:

"We do not own the earth and all that is in it, but we are creatures ourselves. We are not the masters of nature, but God's children entrusted with the wellbeing of God's creation. We cannot possess and exploit but shall cultivate and guard." (Kopp 2015)

Rereading Key Texts of Ecological Biblical Hermeneutics: A Different Ecological Understanding of the Dominium Terrae in Gen 1,28 and Gen 2,15

If an ecological Reformation of Christianity includes a reinvestigation of the content and significance of its most important sources, symbols and texts, this will certainly include key texts which up to the middle of last century were predominantly read and used to justify the approach of dominance and subduing in western modernity, namely the creation narratives from Genesis. While the biblical witness on creation is much broader than just the creation narratives in the book of Genesis, it is obvious that an ecological reinterpretation of Gen 1,28 (to "have dominion over the earth") needs close re-examination. While many authors argue that the "dominion terrae" is to be understood in the historical framework of an agrarian society and should not be interpreted in terms of domination or military conquest but rather in terms of caring, protecting, nurturing, gardening, cultivating and serving (Conradie 2006, 77), others argue that the Hebrew term used (radah=have dominion, and kabash=subdue) cannot be completely pacified and does have some rather harsh connotations. However, as these Hebrew words and their understanding are rooted in kingship roles in the Ancient Near East specific understanding needs to be always heard as well, i.e.,

"the ruler has the responsibility for the well-being of the ones who are ruled over. The ruler (humans) therefore has the responsibility to protect the interests of the ruled (the other animals) with mercy and fairness. Although the provision is made for the use of force and violence, this may never cause the destruction of the community and solidarity between human and the other animals." (Conradie 2006, 80)

It thus has become clear in extended exegetical discussions that the modern approach to nature in the process of industrialization and mass-exploitation by no means cannot be related or justified by the dominium terrae tradition of the creation narrative which is developed in a completely different cultural, historical and climate-related context.

Rereading texts with new ecological hermeneutics does not stop just with some key texts of the creation narratives. There have been new initiatives and exciting projects for an ecological rereading of Biblical traditions both in African as well as Asian or European Biblical scholarship which are worth noting and which encompass many different textual traditions of the Bible (Horrell 2012; Rao 2012). These are based and inspired by the conviction that God's interaction with creatures is not limited to humanity:

"It is always an interaction with humanity in relation to the rest of creation and at times with other creatures to the exclusion of humanity. God's acts of creation, judgment and redemption embrace the earth and all its creatures." (Conradie 2006, 83)

It is interesting therefore that there is a comprehensive exegetical re-reading project of biblical traditions which has become known as "The Earth Bible Commentary Project", pioneered by the Australian scholar Norman Habel (http://normanhabel.com/?page_id=325). It very deliberately reflects the hermeneutical situation of the exegete in the current challenges of the modern environmental crisis, as it belongs to its aims

"to acknowledge, before reading the biblical text, that as Western interpreters we are heirs of a long anthropocentric, patriarchal and androcentric approach to reading the text that has devalued the Earth and that continues to influence the way we read the text;

to declare, before reading the text, that we are members of a human community that has exploited, oppressed and endangered the existence of the Earth community;

to recognize Earth as a subject in the text with which we seek to relate empathetically rather than as a topic to be analysed rationally;

to take up the cause of justice for Earth to ascertain whether Earth and the Earth community are oppressed, silenced or liberated in the text[.]" (Habel, n.d.)

The six guiding principles for an eco-theological re-reading of Biblical traditions, which are provided in the introduction to the Earth Bible Project, may well serve as general hermeneutical principles for inspiring an ecological Reformation of Christianity:

"The principle of intrinsic worth: the universe, Earth and all its components have intrinsic worth/value. The principle of interconnectedness: Earth is a community of interconnected living things that are mutually dependent on each other for life and survival.

The principle of voice: Earth is a subject capable of raising its voice in celebration and against injustice. *The principle of purpose:* the universe, Earth and all its components are part of a dynamic cosmic design within which each piece has a place in the overall goal of that design.

The principle of mutual custodianship: Earth is a balanced and diverse domain where responsible custodians can function as partners with, rather than rulers over, Earth to sustain its balance and a diverse Earth community.

The principle of resistance: Earth and its components not only suffer from human injustices but actively resist them in the struggle for justice." (Habel, n.d.)

Rereading Roman Catholic Theological Teachings: "Laudato Si" as the Most Ecumenical and Successful Global Provocation for an Eco-Theological Reformation of Christianity

The encyclical letter of Pope Francis "Laudato Si" (Franciscus PP. 2015) can be regarded as the Magna Charta of a new integral ecological theology and one of the most courageous and outspoken critiques of the suicidal course of modernization of humanity at present. With this successful provocation a global debate on the throwaway and disposal culture the Pope demands a radical shift away from fossil energy supplies and a new attitude towards the non-commercializable commons of global humanity, i.e. water, air, soil. The global culture of ignorance and indifference shall be replaced by a globalized culture of solidarity. The post-industrial era might be remembered as one of the most ruthless periods of human history, the Pope meditates. This humanity could be the first generation to be able to eradicate extreme poverty if there is common determination and will, but also the last generation which still is able to shift gears and fight irreversible global climate change. The Encyclical "Laudato Si" unquestionably is the most widespread, ecumenical and most radiating Christian call for a radical repentance which has reached out widely in UN circles and also into the fields of other world religions, as for instance Muslim discourses. "Laudato Si" thus is a historic call for a radical ecological Reformation of Christianity and much beyond.

In terms of its content, the Encyclical "Laudato Si" brings some very important methodological decisions which give orientation for the future of eco-theological discourse in principle:

- It gives equal importance and learns both from the most advanced scientific insights recent global research on climate change has to offer as well as the most ancient spiritual sources of wisdom from Biblical and church related traditions, thus faith and science are not being put in opposition to each other;
- It also constantly is relating global ecological concerns for humanity and nature as such to the sufferings of the poor and those bearing most of the consequences of rising sea levels or environmental degradation. Thus, the issues of justice and preferential option for the poor and the ecological concerns are not put into opposition to each other;
- It speaks both a profound dogmatic as well as pastoral language, therefore the ministry of authoritative papal teaching as well as the pastoral ministry of the church are held together;
- Finally it addresses not just Christians but for instance in the two different prayers offered at the end of the Encyclical – Christians, people of other religious traditions as well as all human beings of good will – thus it combines the passion for unity within the church with the passion for unity of humankind in a common ecological learning movement.

"Laudato Si" includes a clear warning to all those responsible in world politics to overcome indifference and ignorance with regard to the primary victims of environmental degradation and to seriously change the basic patterns of development so as to move towards a more sustainable path of transformation as otherwise the very survival of humankind is endangered:

"Climate change is a global problem with grave implications: environmental, social, economic, political and for the distribution of goods. It represents one of the principal challenges facing humanity in our day. Its worst impact will probably be felt by developing countries in coming decades. Many of the poor live in areas particularly affected by phenomena related to warming, and their means of subsistence are largely dependent on natural reserves and eco-systemic services such as agriculture, fishing and forestry. They have no other financial activities or resources which can enable them to adapt to climate change or to face natural disasters, and their access to social services and protection is very limited." (Franciscus PP. 2015) It might be worth noticing that the Roman Catholic Church on world level did not stop just by publishing this masterpiece of modern Christian environmental ethics and theology in "Laudato Si", but it is operationalizing and popularizing this Encyclical in many different, yet interrelated events: In July 2018 the Dicastery on Integral Human Development in the Vatican held a global conference "Saving Our Common Home and the Future of the Planet Earth", at the occasion of the 3rd anniversary of "Laudato Si" which demands for "a global Massive Movement for the Care of our common home", addressing simultaneously issues of global climate change and of a New Economic Order and Global Financial System.

Rereading Indigenous African Wisdom Traditions: The Concept of Christ the Ecological Ancestor and the Notion of "Vital Force" as Starting Point for an African Eco-Theology

There is a debate in African theological discourses about what could provide a good cultural bridging point for linking African eco-theological considerations to elements in traditional African cultures and the spiritual African worldview. African community cultures have been strong in paying respect not only to living elders, but also to the seniority of ancestral spirits. Ancestors are involved in the very conception of life - family, clans, community, nature, the visible and the invisible worlds. Several authors have argued that Christ in African cultural milieus can be presented and understood also as ecological Ancestor. Following Benezet Bujo or Makwasha from Zimbabwe or Charles Nyamiti from Kenya, Kapya Kaoma from Zambia has argued that eco-theological reflections in Africa would benefit by moving towards "an African Missional Christology of Jesus as Ecological Ancestor" (Kaoma 2016, 159 ff). Based on the relevance of genealogies in Biblical tradition where the ancestry is traced back several generations to indicate that all goes back directly to Abraham or to David, and bearing in mind that the ancestors stood for the promise of being rooted and blessed with the land and the fruits of nature, biblical passages receive a new meaning in eco-theological reflections which describe Jesus as the "first born of all creation" (Col. 1,17), which would make Jesus an elder brother to all what lives in creation (Kaoma 2016, 172). Also, the Gospel of John testifies to the ecological ancestry of Christ when it states: "through him all things were made and without him, nothing was made" (John 1,3). Christ thus can be preached and confessed as a role model of providing care not just for human beings, but also for creation as a whole. If Christ is the ancestor of all creation, we cannot regard the human species as fundamentally different from nature, but all need to be viewed as ontologically related beings which live in a relationship of mutual interdependence and interconnectedness. Sin in ecological terms is not anymore limited to human beings but extends to nonhumans in the universe (Kaoma 2016, 175).

In taking up the language of Christ the ecological ancestor it needs to be kept in mind however that the messianic language needs to be held together with the language of traditional wisdom: Christ is not only the one holding the cosmos together as the first fruit of a new creation, he is also the one to bring justice to creation. Overcoming the tension between a justice and sustainability related approach to eco-theology is what is demanded for in African contexts. This also what the SACC document on climate change from 2009 has underlined in trying to learn anew how mercy and loyalty, justice and peace are intimately connected (see Psalm 85:10–11).

"In ecumenical documents on climate change, also from within the African context, climate change is typically regarded as an issue of justice and not only of sustainability. This is usually related to the observation that the current and the most likely future victims of climate change contributed least to the problem..." (Conradie 2010, 208)

Since climate change is a function of certain specific and distorted forms of production of wealth, it can only be addressed through economic transformation that will entail a *redistribution of wealth*. Therefore, the most appropriate mechanisms for peaceful and mutually agreed redistribution mechanisms need to be clarified.

An interesting side-debate in this perspective is related to the question how to assess the role of Pentecostal Churches and theologies with regard to eco-theological stewardship and responsibility. Some scholars like Ernst Conradie argue that "the pneumatology of African Pentecostalism also tends to focus more on the individual quest for welfare much to the neglect of societal needs and the care of the earth" and therefore is not really conducive for an eco-theological transformation, but instead is contributing "to the perpetration of capitalistic greed and the widening of the gap between the rich and the poor" (Ngong, David Tonghou. 2010. *The Holy Spirit and Salvation in African Christian Theology: Imagining a more hopeful Future for Africa.* New York: Lang, quoted in Sakupapa 2013, 424). But there are also voices which argue that the original traditional African concept of the Spirit as a "vital force" in nature can facilitate more dialogue between African pneumatology and the eco-theological discourse: Teddy Sakupapa from Zambia has convincingly argued:

"In light of the conceptual framework of vital force therefore, it can be argued that the Holy Spirit will be understood as the vital force and life that is common to all. In other words, the Spirit's presence will be recognised in the whole of creation in a panentheistic sense. This perspective is particularly important in getting African Christians and churches involved in ecological work. In fact, in African cosmology, the sacredness of nature is derived from nature's relationship with the creator whose vital force has animated nature. Humans are therefore in an ontological relationship with nature given their common descent from the creator. A pneumatological understanding of vital force enhances this ontological relationship." (Sakupapa 2013, 428)

Rediscovering the *Missio Creatoris Dei* – Bringing Together Sources and Insights from Orthodox, Feminist and Pentecostal Traditions for a Trinitarian Understanding of the Church and the Oikumene as a Place of the Indwelling Spirit

Kapya Kaoma has stated repeatedly that the very understanding of mission of the church as *missio Dei* has to be enlarged and put into an ecological universal context: Christian mission is not church or human centred, but God centred. But as God is concerned about the whole of the universe and not just about the human being, also the understanding of his mission has to be liberated from anthropocentric reductionism. If Christian mission is joining God in proclaiming and performing God's rule on earth, then the churches mission is related by to the mission of Christ (mission Christi), empowered by the mission of the Spirit (mission Spiritus), but at the same time participating and related to what God is doing already in the midst of his creation, which he did not cease or leave behind, the *Missio Creatoris Dei*, his loving and caring for all what lives in creation (Kaoma 2016, 162 ff). A Trinitarian approach to *Missio Dei*, understood as *Missio Creatoris Dei*, according to Kapya Kaoma can lean on very important witnesses of faith as included in biblical tradition as well as in church hymns:

The famous clause and hymn in Ps 19,1–4 provides evidence for the whole creation to be a witness to the Triune Creator God:

"The heavens declare the glory of God; the skies proclaim the work of his hands. Day after day they pour forth speech; night after night they reveal knowledge. They have no speech, they use no words; no sound is heard from them. Yet their voice goes out into all the earth, their words to the ends of the world."¹

Once we ask which theological traditions in African Christianity have mainly supported this view of a *Missio Creatoris Dei* and the work of the Holy Spirit in the whole of the universe we find significant evidence for a crucial support for an eco-theological Reformation of African Christianity. Particularly from some of the predominantly marginal church or theological traditions, i.e. Orthodox, Feminist, Independent and Pentecostal church traditions. Some of these church traditions – while no generalization is possible – significantly seem to contribute to broadening an understanding of the ongoing activity of God's Spirit in the midst of the universe – though this does by no means imply that other church traditions have nothing to offer in terms of eco-theological expertise and wisdom. There are some clear hints to a cosmological understanding of mission also in some recent conceptualizations of African as well as evangelical missiology (see, e.g., Walls and Ross 2008; Bosch 1991; Samuel and Sugden 1999). It might be important to bring together and to assess the different learning streams and renewal movements within African Christianity with regard to their potential contribution to a new sense of awe, of wonder, respect and responsibility to the beauty of creation:

- Ancient Orthodox church traditions in Africa like the Ethiopian, Coptic or Eritrean Oriental Orthodox traditions have an understanding for indwelling activity of the Holy Spirit in Creation as well as a respect for regular fasting traditions as well as the blessings of water and with it all of creation which also have a profound significance for the relation of human beings to nature and the ecological integrity.
- Feminist theological circles in Africa stress the female characteristics of God and the works of the Holy Spirit which contradicts patriarchal patterns of rule and oppression over against women as well as over against nature. The discourses about human sexualities, alternative masculinities, as well as the human body have also contributed to the search for a new attitude towards nature within the environmental challenges at hand (see, e.g., Masenya 2010; Dube 2015; Siwila 2014).
- Scholars like Marthinus L. Daneel have argued that African Initiated Churches are potential "Vehicles
 of Earth-Care in Africa" (Daneel, n.d.; 2006) and the research project of Humboldt University is
 adding significant research insights on African Initiated Churches to be regarded as significant
 development actors and potential partners of development cooperation in Germany (Öhlmann,
 Frost, and Gräb 2016). We will look at one case study more in detail in the last section.

There is a more conflictive or ambivalent and divergent view on the eco-theological openness and contribution of African Pentecostal theological traditions: There are some important voices also to argue that African Pentecostalism has a potential to become a major contributing factor to ecological awareness building on the African continent (Sakupapa 2013). But other voices like Ben-Willie Kwaku Golo (2013) argue that Pentecostalism first needs to re-think the traditional understanding of salvation in African Christianity which in many cases follows the notion that the divine restorative plan is *creation-sin-redemption*, which for many centuries also dominated the Western church. Pentecostalism to become

¹ Similar cosmological understandings of the work of the Holy Spirit are embedded in some church hymns like in the famous "Great is thy Faithfulness" by Thomas Chisholm which echoes the praise of God from the awareness of his continuous working presence in the midst of creation. See text in: https://www.hymnal.net/en/hymn/h/19.

more open to the eco-theological movement instead needs to be guided by the earlier notion and sequence of a creation-incarnation-recreation divine restorative plan which was the way the early church understood God's redemptive plan, as it centred on Jesus Christ and the victory of the Redeemer-Creator God in Jesus (Golo 2013). Only with an approach taken from a Trinitarian concept of *Missio Creatoris Dei* the prevailing ecological negligence in parts of African Christian salvation theology and the related divorce between creation and salvation could be overcome. Otherwise African Christianity would remain captive to "an anthropocentric utilitarian notion of salvation that has reduced the earth to commodification, with no spiritual significance, save an abode of demonic spirits which must be overcome if humans would live in prosperity – an environmentally disastrous worldview. This is because natures indwelling 'demonic' principalities and powers are obstacles to the progress and transformation of the redeemed – a notion that is predominant of various forms of neo-Pentecostalism in Africa, both within and outside traditional Pentecostalism" (Golo 2013).

The ambivalent picture regarding the eco-theological relevance and openness of African Pentecostalism might be summarized in voices such as the Pentecostal scholar Chammah Kaunda from Zambia/South Africa who stated that African Pentecostalism still has a major task yet to become fully engaged with ecology and with eco-theological reflection. While there is a remarkable new Pentecostal scholarship in the area of eco-theology emerging on global scale (Studebaker 2008; Swoboda 2013; Yong 2011) still we are lacking more prominent and younger scholars to come up with new African Pentecostal theological outlines and conceptualizations to really make an impact on Pentecostal African Christianity. The need for training faith leaders in eco-spiritualities is obvious all around and taken up systematically only by very few institutes in Africa so far.

Visions – Imperatives for Churches Engaged in Climate Justice and Ecological Transformation

The Greening of Churches – Local Churches as Laboratory for Learning Sustainable and Environmentally Responsible Lifestyles

Ecological transformation starts with changes in attitudes, awareness and daily practises in local places. The churches do have the advantage that they have thousands of local congregations which assemble regularly. Each of them usually has a place which is relevant for a larger group and therefore has an educational function as well. Church courts, church related cemeteries, church buildings are ecological learning centres. In several countries "Green Church" networks have emerged which bring local churches together which have similar standards to commit itself and learn for environmentally sound and transparent ways of living (Scotland, Denmark, Canada, Australia, Germany and others). The Canadian Green Churches network has formulated the goal: "The Green Churches Network equips faith communities to opt for better ecological practices while educating members to live in a way that stewards creation" (https://greenchurches.ca/about-us/). Similar networks exist in other parts of the world, e.g. in the Episcopal Church in the US ('Greening the Church' 2013; 'Seven Ways to Jump Start the Greening of Your Church's Theology and Worship', n.d.). Some have established eco-justice ministries ('Greening Your Church: Overview', n.d.). Some have developed detailed guidelines about how to provide ecologically sensitive care for church premises (Eco-Congregation Scotland 2011). While these initiatives can provide important incentives to do something in one's own direct backyard these initiatives need to maintain a clear focus on the interrelatedness of justice and ecological concerns, in order not to become trivialized just in terms of covering up the church members awareness with limited "nice flowers on the altar" slogans. Church leaders like the Archbishop of Canterbury have done significant work in deepening the efforts of Green Churches networks for a sound and comprehensive

approach (A Rocha UK 2016). It is interesting that Afro-American churches have joined and created their own network for "greening the churches", while putting major emphasis on issues of climate justice for disadvantaged groups (Lopez-Wagner 2016).

There are some examples from the African continent as well where churches have started green churches learning projects, like in the Diocese of the Anglican church of Swaziland and African Methodist Episcopal Church (Ncumisa 2017). There is an impressive Southern African Eco-Congregations network which is promoted by SAFCEI, the South African Faith Communities Environment Institute (https://safcei.org/about-us/). But an association of African green churches on the whole of the continent which could encourage earth spiritualities to be developed in different contexts does not yet seem to exist – this might be a task to be taken up by AACC in future. A full-scale African theology of environmental stewardship as a joint project of churches on the African continent is still a vision to be implemented and worked for (Beisner et al., n.d.).

Interrupting the Cycle of Unlimited Consumerism – Rediscovering the Value of Ancient Practices of Fasting and Praying

It should not be forgotten that both in Christian as well as in Muslim traditions in Africa there is a widespread knowledge alive in terms of traditions of regular fasting periods, which have a profound implication for sustainable lifestyles and eco-theological awareness-building. The majority of Ethiopia's Orthodox Christians which make up 43.5% of their national population is fasting regularly. The Ethiopian Orthodox Church requires people over age 13 to fast for at least 180 days a year. Similarly, the majority of Muslims in Africa share in celebrating the fast of Ramadan. Fasting has been an ancient practice in all of Christianity which held regular fasting days traditionally each Wednesday and Friday (still preserved in Orthodox Christianity also in Africa). This aimed at a regular interruption of the cycles of violence over against nature and in society as well as a period of preparation for prayer and for meditating the journey of Christ to the Cross. The regular exchange of periods of fasting and consumption can contribute today for an attitude of respect and appreciation for nutrition and healthy food as well as cultivate a sense of solidarity and listening to those who have nothing to eat. In many of the African Initiated Churches fasting also plays a big and visible role in spiritual disciplines. The common fasting period of 40 days before Easter currently experiences a renaissance also in Western Christianity where different forms of fasting are practiced to get rid of bad habits and to become less addicted to items which modern consumerism offers to people. Fasting traditionally always is related to repentance, to generosity, to prayer and other ways of strengthening inner spiritual disciplines. Even the last Holy Council of the Orthodox Churches which was held in Crete (Greece) in 2016, came up again with a major statement explaining the significance of the ancient Christian discipline of fasting: "The Importance of Fasting and its Observance today" (Holy and Great Council of the Orthodox Church, n.d.).

The late Ecumenical Patriarch of Constantinople has increased awareness and mobilization for fasting and ecology by 1989 calling for a season of creation which since then is observed and supported by WCC each on 1st of September and the following 10 days by WCC member churches (World Council of Churches, n.d.; see also https://seasonofcreation.org/). Increasingly there are initiatives and campaigns to link Christian Fasting practices with ecological concerns, even with carbon-fasting ('A Lenten Fast, from Carbon and from Pride. Our Eco-Inspired Lenten Practices Can Save Souls and Eco Systems' 2017; see also https://catholicclimatemovement.global/fast-2/). The international Fast for the Climate Movement started in 2013 and gains more followers every year: People are fasting each first day of the month in order to stand in solidarity with vulnerable people who are most affected by dangerous climate

impacts. "By choosing not to eat on the first day of every month, a growing movement of fasters including many youth groups, environmentalists and faith communities, is calling for world leaders to act to stop the climate crisis" (Climate Action Network International, n.d.). The Lutheran World Federation has spearheaded this global and interfaith oriented movement which is taken up by many young people all around the world (https://www.lutheranworld.org/climate-justice/fast-for-climate).

The Eucharist as a Multi-Dimensional Earth Healing Process: Healing of God, Healing of Human Community, Healing of the Earth

Another meaningful development is reported mainly from Zimbabwe where under the auspices of the Zimbabwean Institute of Religious Research and Ecological Conservation, two religiously distinct movements - the Association of Zimbabwean Traditionalist Ecologists and the Association of African Earth-keeping Churches - in the 1980s joined forces to wage a new chimurenga, a struggle for the liberation of creation, particularly the rehabilitation of the degraded environment of Zimbabwe's overcrowded communal lands, under the banner "war of the trees" (Daneel 2006). In the early 1980s, the movement Marthinus L. Daneel started in Zimbabwe planted around 15 million trees, produced 100,000 seedlings per year, and mobilized a "green army" seeking to heal the land and the population after the devastation of war (Daneel, n.d.). This involved planting trees, conserving land, forging peace, seeking reconciliation, and encouraging forgiveness. The earth-and-people-healing ministry provided new impetus and direction to church life and mission, as well as numerical church growth. These churches excel in developing original, contextualized theologies at the grassroots of African society (Daneel and Hill 2016). A "Network of Earthkeeping Christian Communities in South Africa" emerged (Davies 2006; Daneel 2007). In its liturgical practises this movement hat insisted that Christian spirituality has also to build new relationships with the entire creation in attempt to avoid destruction and preserve life for all creatures:

"This understanding has generated a tree-planting Eucharist in an attempt to integrate creation into the body of Christ. ... The central argument among proponents of a tree-planting Eucharist is that the body of Christ is more than the church. The concept also includes relationships with all creation: 'For by him all things were created ... in him all things hold together ... and through him to reconcile to himself all things' (Colossians 1:16–20)." (Masika 2012)

Liturgically, the tree planting accompanies the Eucharist, but does not replace the core of the sharing of the Eucharistic elements. The Preparation of an earth healing Eucharist begins with the digging of holes for planting trees in the church compound. The site is sometimes called "The Lord's Acre".² The sacrament itself is introduced by public confessions of ecological sins, such as random tree-felling, causing soil erosion through riverbank cultivation and the use of sledges, etc., under the guidance of Spirit-filled prophets. Seedlings are placed on the communion table along with the bread and wine. After public confession of ecological sins, participants line up and file past the table picking up a seedling and partaking of the elements. Each participant then proceeds to the prepared holes, where the bishop sprinkles holy water on the ground and says liturgical words of blessings for both the seedlings, for the

² There is a certain use of the same term "The Lord's Acre" also in Western Christianity, but it is not known whether this is connected to a deep ecological meaning like in the example from Zimbabwe.

water and for the soil. Thus, elements of nature are organically integrated into an earth-healing Eucharistic service which is quite meaningful (Masika 2012, 3 ff).

We have no reliable information on how far this has spread and whether it is still continued (together with SAFCEI in South Africa several regional initiatives are known which support tree planting initiatives, see http://safcei.org/tag/tree-planting/). But reports are there that also the Baptist mission of Kenya has taken up some of these enlarged Eucharistic liturgies: Seeing the rapid disappearance of indigenous trees and forests as an opportunity for churches it has developed a tree planting culture across Kenya, in order to bring a Christian perspective to bear on environmental concerns in East Africa.

The tentative thesis presented here is the conviction that African Initiated Churches while often not having a formal and visible focus on ecology yet, do have the potential for mobilizing for new eco-theological awareness and ecological reformation of African Christianity not only because their members are often in the frontline of those bearing the consequences of western or African waste disposal practises and environmental degradation, but also because in their liturgies, theologies as well as in some initiation rites there a elements of traditional African wisdom embedded which point to a much closer relationship between nature and humankind then in other forms of western Christianity.

But we need more empirical research on the reality of African Initiated Churches in order to arrive at a more substantial assessment of their actual role with regard to establishing an ecological mind-shift in African societies and churches in general: Can the growth of African Initiated churches particularly in Southern Africa be understood as a sign and symptom of the resistance of African Christianity to become submerged into the mindset of traditional Western Enlightenment Worldviews and Instrumentalist Interpretation of the Dominium Terra? Is the return to traditional spiritual worldviews and the perception of nature as a realm of the sacred, the spirits and the ancestors which is held in many of the African Initiated Churches, a relevant, a sufficient or even the only possible solution to the environmental crisis on the African continent? Or does it present at least a significant contribution for the Christian response to the environmental crisis in the Africa? While we would assume that there are significant potentials and assets in terms of environmental ethics and responsible stewardship in African Initiated Churches we ought to be careful not to romanticize and idealize just one type of African churches in this regard. What determines the life of young people in Africa today are not just traditional and indigenous African values, but with more powerful influence certainly also values of modernity, smartphone culture, and forces of individualization and consumerism. It appears to be a more realistic assessment of the situation to argue that only the complementary role of common efforts of all African churches and the different types and denominational streams will be able to achieve a solid and continent wide impact in changing the value systems and strengthening ecological stewardship and responsibility for the future of African nations for the decades to come.

Theologizing About What We Leave Behind – Towards a Prophetic-Critical Garbage Theology

What is not yet really developed and might be new also in African contexts is the concern for a garbage theology. It is interesting to look at the state of our civilization from the end of it, i.e. from the perspective of what ends in the waste disposal bags, in the landfills, in the dumpsites, whether they are legal or illegal. The analysis of what can be seen in the dumpsites shed a light on our values, priorities and consumption interests. In the garbage can or landfill we see evidence of our insatiable desire for convenience, our indifference to the other (both human and non-human), the reflection of our throwaway and short-use cycles culture and our personal laziness.

In an average dumpsite we see as having arrived from our style of living and consumption (Swanson, n.d.; 1993):

Paper	41%
Yard/Garden Waste	18%
Metal	9%
Rubber, Leather, Other	8%
Food Waste	8%
Glass	8%
Plastic	7%
Other	1%

Table 1: Share of garbage types in a landfill according to Swanson, n.d.

Pope Francis, after having addressed the "culture of waste" on several occasions (Ziegler 2013), in his Encyclical Laudato Si has clearly pointed to these challenges in stating:

"These problems are closely linked to a throwaway culture which affects the excluded just as it quickly reduces things to rubbish. To cite one example, most of the paper we produce is thrown away and not recycled. It is hard for us to accept that the way natural ecosystems work is exemplary: plants synthesize nutrients which feed herbivores; these in turn become food for carnivores, which produce significant quantities of organic waste which give rise to new generations of plants. But our industrial system, at the end of its cycle of production and consumption, has not developed the capacity to absorb and reuse waste and by-products. We have not yet managed to adopt a circular model of production capable of preserving resources for present and future generations, while limiting as much as possible the use of non-renewable resources, moderating their consumption, maximizing their efficient use, reusing and recycling them. A serious consideration of this issue would be one way of counteracting the throwaway culture which affects the entire planet, but it must be said that only limited progress has been made in this regard." (Franciscus PP. 2015)

There is a growing awareness also in the political sector in African nations for the urgency to deal with proper waste disposal management systems (Roberts 2014). Africa's pressing need for waste management is a topic which is being discussed (Kaledzi 2017). The phenomenon of plastic waste disposals being carried by major streams into the world's oceans causing the death of millions of animals in the sea is well known and increasingly researched (McGrath 2017).

While the difficulties for proper waste disposal management and garbage recycling are global apparently there have been little efforts to develop a contextually relevant theology of waste disposal or an ecologically sensitive theology of recycling. It is in this area that the concern for ecology and the concern for the marginalized and urban poor are very closed linked with each other (see as an exception from African contexts: De Beer 2014). There are some promising examples of prophetical theologians trying to do theology from the context of garbage dumping sites and in solidarity with those who have to work on garbage sites (Freund 2014).

Checking on the Environmental Implications of Global Meat Production and Consumption – Moving Towards a Global Nutrition Transition

A final area where some Imperatives for churches to become engaged in climate justice and ecological transformation needs to be reflected is the huge increase in global meat production which has vast implications for the continuation of global climate change:

Scholars present us with data that global meat production and consumption have increased rapidly in recent decades, with harmful effects on the environment and public health as well as on the economy, according to recent research done. Worldwide meat production has tripled over the last four decades and increased 20 percent in just the last 10 years. Meanwhile, industrial countries are consuming growing amounts of meat, nearly double the quantity in developing countries – this is one of the gravest areas in which injustice and inequality is obvious in today's economic systems.

Large-scale meat production also has serious implications for the world's climate. Animal waste releases methane and nitrous oxide, greenhouse gases that are 25 and 300 times more potent than carbon dioxide, respectively ('Global Meat Production and Consumption Continue to Rise', n.d.). Thus the landscapes and data of global meat consumption and production is an area in which both the global threats of unhealthy nutrition standards as well as the grave injustices between some countries in the North and some countries in the South become apparent: According to FAO data it is stated that

Between 1997/99 and 2030, annual meat consumption in developing countries is projected to increase from 25.5 to 37 kg per person, compared with an increase from 88 to 100 kg in industrial countries. Consumption of milk and dairy products will rise from 45 kg/person/p.a. to 66 kg in developing countries, and from 212 to 221 kg in industrial countries. For eggs, consumption will grow from 6.5 to 8.9 kg in developing countries and from 13.5 to 13.8 kg in industrial countries. (Bruinsma and Food and Agriculture Organization of the United Nations 2003, 159)

But more detailed data are showing that in many developing countries it is not just an average increase in meat production and consumption, which is taking place, but in addition there are clear trends to have a rising number of people suffering from over-consumption of meat and malnutrition like obesity (DeCapua 2012).

The consumption of meat in some industrialized countries is declining gradually whereas in some developing countries is increasing sharply:

In the developing world, particularly sub-Saharan Africa, meat can be a tremendous boost to people's diets. It can provide important nutrients that they weren't getting before, especially for malnourished populations; and it can really help people, especially children, develop better. But what we're seeing not just in the industrial world but also in developing countries is over-consumption of meat. Because it's cheaper than it's ever been more and more people can consume it. (Danielle Nierenberg, Director of the Worldwatch Institute's Nourishing the Planet Project, quoted in DeCapua 2012)

The model of mirroring and repeating the development models and modernization patterns of western countries (the wrong principle of "catch-up development") by linking progress and wellbeing to excessive patterns of meat consumption is at work here with some fatal and disastrous consequences in the long run. The United Nations forecasts demand for meat, milk and eggs in Africa will almost quadruple by 2050, fuelled by a ballooning population – expected to double to 2.4 billion – and a growing

appetite for high-protein foods driven by rising living standards. It is therefore asked by experts: "Can Africa deal with an expected boom in demand for meat?" (Bacchi 2017).

Ecologically dangerous are particularly the high level of Green House Gases which are a result of increased meat production: A report from UNEP (2012) has revealed:

The true costs of industrial agriculture, and specifically "cheap meat", have become more and more evident. Today, the livestock sector emerges as one of the top two or three most significant contributors to the most serious environmental problems. This includes stresses such as deforestation, desertification, excretion of polluting nutrients, overuse of freshwater, inefficient use of energy, diverting food for use as feed and emission of [greenhouse gases]. Perhaps the most worrisome impact of industrial meat production, analyzed and discussed in many scientific publications in recent years, is the role of livestock in climate change. The raising of livestock results in the emission of methane (CH₄) from enteric fermentation and nitrous oxide (N_2O) from excreted nitrogen, as well as from chemical nitrogenous (N) fertilizers used to produce the feed for the many animals often packed into "landless" concentrated Animal Feeding Operations.

Scholars and experts in WHO now speak of the global nutrition transition and the pandemic of obesity in developing countries (Popkin, Adair, and Ng 2012). Is there a way of the African development paradigm and model for a sustainable future to dis-connect and de-link the notion of progress and wellbeing or prosperity with excessive rates of meat consumption? This is an interesting topic as some tensions might be also faced where values of traditional African cultures might also clash with ecological considerations so that here we might have an area where in some cases also traditional African values and traditions are contrary to modern ecological imperatives. For instance, there are interesting debates about meat consumption and healthy lifestyles in Massai ethnic communities (Berg Petersen 2012; Kuhnlein et al. 2009, chap. 11).

The balance between maintaining wildlife populations, allowing for hunter practices still to have their ecological zone, not continuing to promote deforestation while at the same time developing programs for controlling hunting and bush meat trade are additional challenges in traditional rural African regions which are seriously discussed by experts with regard to protecting the ecological space for wildlife and to slow down the loss in biodiversity which is a challenge in several African nations (Milner-Gulland and Bennett 2003).

In other words, without diminishing the differences in nutrition styles both between and within countries of the North and the South the issue of how much meat consumption is both ecologically sustainable as well as supportive for human health has strongly entered the international ecological discourse, is waiting for a courageous answer from the ecumenical movement and Christian churches – for example, the German Protestant Churches are working on a major study on animal ethics, ecology and meat consumption.

It has become clear therefore that a change in nutrition values and attitudes will be required both in Western and in African countries, related to the envisioned global nutrition transition, some of which might be in conflict also with traditional African values and customs. But it is the task and mandate of the churches to transform values, lifestyles and patterns of behaviour even to the extent that this might clash with traditionally owned perceptions so as to reflect properly the values of the Kingdom of God and life to be shared with all – including the future generations on this earth.

An Ecological transformation of Christianity is not a task just for one generation of younger African theological scholars and church leaders, it is a task which demands focused attention and disciplined work both on the theological, the pastoral and the practical levels in churches, NGOs and in civil society

organizations, in collaboration with all people of Good will also from other religious traditions – may God provide us with the time that transformation which lead to sustainable lifestyle for all will remain still possible within the short time span still provided to us.

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