



The Green Economy - indicator of a world in deepening crisis

The context of Diakonia Council of Churches as an agent of Change

The role of Diakonia Council of Churches, since its inception 36 years ago, has been one of uniting the churches against injustice. Critical to the prophetic stance of Diakonia Council of Churches is the need to understand the root cause of the injustice and not just to apply band-aid solutions to the manifestation of the problem.

The “green” economy appears to offer an economic development solution that could provide economic development that would serve the needs of the poorest within society while protecting our environmental resources (our air, water and land) both for current and future generations.

However, it is our contention that the green economy as it applies to Africa, is nothing more than continued exploitation of the poor for the benefit of the rich, carried out using the current terminology of the day, business as usual with a green tinge.

In this paper, we provide some South African examples of how aspects of the green economy are playing out. We examine how the South African government is planning the green economy, and we provide some reflections on how the global community might act in unison to expose the false claims of the green economy, and work together to realise sustainable development for all citizens.

The international context of environmental justice:

It is important to refresh our memories of the state of the world today. Ninety percent of 1.2bn people in extreme poverty depend on forests for their survival. However, globally, we are losing 86 400 football field equivalents of rainforest very dayⁱ. This equates to one field per second. So, the world’s poorest people are becoming poorer.

We are also well aware of the fact that “arms production and trade is a lucrative business with an annual turnover 15 times bigger than the world’s international aid”ⁱⁱ, and that nearly half the world - over three billion people - lives on less than \$2.50 a dayⁱⁱⁱ.

South Africa national spending priorities:

Nationally, if we look at South Africa, we see that according to the 2012 budget, 15 million people or about 30% of the population received some form of social grants (official unemployment 23.9%^{iv}). How much is this social grant? R1200 (\$155) for pensioners and R280 (\$36) for child support - per month. What can you buy to keep you healthy and secure for that amount?

Of a total budget of about R 1000bn, Health is getting R113bn, and Education is getting R207bn (21%). These are healthy chunks of money going to directly service people’s needs. Some attempt is being made to create jobs (Extended Public Works is getting R78bn^v) and a small amount is

focused on employing youth (R5 billion over next 3 years)^{vi}. In order to put this in perspective, it is relevant to remind us that one in two youth below 25 years old looking for work is jobless^{vii}.

But there are some other areas of the South African national budget that are getting large amounts^{viii}. Defence is getting R44bn, with Safety and Security getting R105bn. In addition, the private security industry adds another R40bn onto this amount^{ix}. We might want to reflect on the amount of money going into policing and prisons, and contrast this with the amount specified for youth employment. With limited resources, and over 50% of offenders under the age of 35^x, where should South Africa focus – on developing its youthful population into responsible, economically active citizens or in locking them up? In terms of the current model of economic success, building prisons reflects positively on GDP, and the underlying moral values for the allocation of resources towards large infrastructure, rather than youth development programmes are not questioned.

Within Government, although not specifically mentioned in the national budget, the Department of Energy is speaking of amounts which are nearly 2/3 of our national budget to be put into infrastructure for the nuclear build. This amount which varies from R300bn to R600bn as a minimum appears to be an incredible lock in of state funds.

Who would finance this? If this amount of money is to come from the state coffers, what other services will not be funded? Will there be no more schools, no more hospitals and no more funding for youth development programmes?

How has South Africa experienced growth and development?

In 2003, a United Nations (UN) report focused on human development in South Africa noted that the “current strategies and policies for achieving growth through increased exports and competitiveness are pursued through the adoption of new production technologies that are increasingly capital intensive”^{xi}. The report goes on to argue that such an approach is logically anti-poor as it widens the gap between employment growth and economic growth.

In 2011, eight years later, the National Planning Commission (NPC), a group of advisory commissioners appointed by the presidency to develop a National Development Plan, and headed up by former Finance Minister Trevor Manuel, produced a diagnostic report which acknowledged that during the first decade of this century there had been 4% economic growth but that the 40% of the wealth had gone to 10% of the richest people, and that the economy had lost 1 million jobs between 2008 and 2009^{xii}.

However, the National Development Plan, drafted to solve these problems, proposes that business as usual – the approach encompassed by previous macro-economic policies, namely export directed economic growth through increasingly capital intensive industries - should be continued.

This is illogical. If the problem has not been solved in the last 8 years through pursuing this style of economic growth, then continuing to pursue this is highly unlikely to yield a different result. It is like banging your head on the wall, experiencing pain and continuing while expecting a different result. In order to stop feeling pain, you need to stop your existing behaviour. (with apologies to Einstein who apparently said “Insanity: doing the same thing over and over again *and expecting different results.*”).

Does the Green Economy as proposed by the National Planning Commission, the New Growth Path etc provide an alternative view of the current system? In effect, South Africa continues to follow a

two track economic development path, where one track focuses on export led high earnings growth particularly in raw minerals such as coal, iron ore etc. While this does not benefit the poor, nor does it offer a path out of poverty, it yields income which is then used to attempt to band aid over the poverty which the majority experience. The need to restore ecological damage is not acknowledged and environmental issues are reduced to “reduce pollution^{xiii}”, rather than aiming for a zero waste approach.

Has it worked?

“South Africa is now in the humiliating position of having one of the highest inequality gaps in the world” (Bishop Geoff Davies)^{xiv}. Despite having 4% economic growth post 2000, 40% of the national income went to 10% of richest households.

In 2003, the UN human development report highlights that the poor (in South Africa) are increasingly unable to meet the costs of basic services^{xv}. There are 2.5 million households without electricity, and a further estimated 2 million who have access to electricity in their house but cannot afford to use it.

Will the Green Economy make a difference?

In South Africa, the New Growth Path (produced by the Ministry of Economic Development) report lauds the 4% economic growth achieved post 2000 and mourns the deepening inequality^{xvi}. The New Growth Path proposes to address the unemployment challenge through six job drivers, with the green economy as only one of the six, and with infrastructure as another separate point.

The National Planning Commission development plan proposes infrastructure build which includes the construction of a new coal line to unlock coal deposits in the Waterberg and associated water infrastructure: “the timely construction of key new water schemes to supply these industrial and urban centres”^{xvii}. The green economy appears, therefore to have laudable aims but implementation follows business as usual, with the country, according to the NDP, remaining wedded to mineral exploitation^{xviii}.

Does the Green Economy as envisaged for RIO+20 provide an alternative?

In preparation for RIO+20, the UN environment programme (UNEP) produced a report on the green economy that provides an insight into how UNEP thinks that the world can be saved. The report from the UN outlines how all ecological systems have deteriorated over the last 20 years, despite the major commitments to improving the ecological welfare of the planet, and the road map called sustainable development and agenda21 that was adopted at RIO in 1992. The thrust of the green economy is that, while ecological limits are acknowledged, there is a failure to see the interdependence of living and non-living systems. There is talk of trade-offs and the key solution promoted is to do less harm and to offer incentives for conservation, and to implement more pricing of natural capital^{xix}.

What price are we going to put on Table Mountain? What of the rhino's? If all that stands between them and extinction is whether the price that conservation is prepared to pay to save them is bigger than the price that rhino horn syndicates can get for them... they are gone.

At best, it appears that the green economy is a buzz word, for applying the same export driven, capital intensive economic growth to renewable energy, energy efficiency and other “environmentally friendly” technologies. Continuing such a paradigm is unlikely to result in a more

equal society, nor enable us to eradicate poverty. At worst, the green economy is a move to further commodify areas of the planetary system that have to date remained public good (such as water), or to create new market products such as carbon emissions.

Ecological systems clean our water, provide oxygen for us to breath and are basically our life support system. If we abuse this system, we go extinct, maybe more slowly than the rhino but just as inexorably.

Now add climate change - another stressor to our life support system.

After seventeen years of nations meeting to try to find a solution to climate change, we still have no real action. And now we see how international focus has shifted towards COP18 and also on to RIO+20. We have to ask what is going to change?

This attempted commodification of all life is not new and it illustrates a value system that sees worth only in a utilitarian value to humans and whose unit of measurement is the sterile dollar. Is this the value system that we wish to perpetuate?

South Africa's water crisis - can the market provide the answer?

In South Africa, "Due to low rainfall, exacerbated by forestry and agricultural land use, only 9% of rainfall reaches rivers, compared to a world average of 31%. Total societal water requirements closely approached availability limits by 2000"^{xx}, and it is likely that South Africa's demand for water will outstrip supply in a few years. This means that we will have effectively run out of fresh water. How will we use our scarce resource?

At the moment, an international defined essential amount of water to avoid ill health is 50 litres a day^{xxi}. According to our business as usual theory, as things become scarce, their value rises in monetary terms. If we have no drinking water, we may to have many desalination plants along the coast, these will probably be run by contractors, maybe even owned by private companies who will sell their water to citizens via municipalities. As with Eskom today, no doubt, such water providers will no doubt be allowed to recover their costs and make a "reasonable return".

For some idea of what this might look like at today's prices, let us examine the cost of bottled water. Current estimates would be R8 per litre. In order to reach the UN standard of 50litres per person a day, this would cost R400 per day. No doubt the wealthiest minority will continue to buy more than the minimum 50litres a day.

If we return to the pensioner whose monthly pension is R1200, we see that a pensioner, if she spent her entire pension on water, would only be able to afford 3 days of water. What happens then?

A further example of how water is commodified is the South African water scheme, Vaal River Eastern Subsystem Augmentation Project (VRESAP), in which water is taken from the Vaal dam to Secunda in Mpumalanga. VRESAP has been completed at a cost of R2.5 bn, the cost of which will be passed on to the customers via tariff charges to Eskom and Sasol. However, there is a further scheme to take water from Leotho to Vaal River. The project will cost R7.3 bn and the aim of the project is to ensure water availability in the Vaal river system. Clearly this will be linked to VRESAP as it seems obvious that having decided to remove water from the Vaal for Eskom power stations, it is now necessary to spend R7.3bn on infrastructure to augment water in the Vaal system for its current and future demand.

All of this large infrastructure will add to GDP measured economic growth, and for whom is this infrastructure - it seems the major beneficiaries will be the mines, particularly coal.

Can we really support a value system that judges our living ecological resources only in terms of the money they generate - a system that regards those that can't pay as sub-citizens, not deserving of human dignity in their own right, but to be treated with pity, maybe with a small allocation of free resource that they cannot survive on. Is this not the logical conclusion of relying on market mechanisms to solve ecological problems?

What about internalising external environmental costs?

Is it possible to use market mechanisms to address environmental issues? We will use the proposed carbon tax in South Africa as an example. At first glance, the carbon tax appears to be a way to address injustice.

Coal based electricity generation and liquid fuels derived from fossil fuels will be subject to an additional tax, thereby increasing their costs compared to renewable alternatives. Producers would pass the tax on to their customers who would then be likely to make clean energy choices. The idea is also that the carbon tax would therefore help close the existing price gap between fossil derived fuels and renewable alternatives through internalising the external costs associated with coal and oil.

However, in the South African economy, there is currently no choice. 70% energy and more than 90% of electricity is fossil based^{xxii}. As the price of petrol and diesel rises, then the price of taxi fares, food and any other goods that are trucked around the country will increase. Yes, the electricity price will also rise and given that many households are dependent on paraffin (also a fossil fuel) the costs of living will increase dramatically.

Initially, government's response to the acknowledged disproportionate impact on the poor was to propose an increase in the free basic electricity allowance. However, this only provides relief to those that have access to electricity and fails to address the other cost of living increases. Treasury's latest response is to propose to reduce the level of Value Added Tax (VAT), currently 14%^{xxiii}. This is an improvement in that it acknowledges that the impact of a carbon tax is much wider than initially envisaged: it will still result in a disproportionate burden on the poor. Basic foodstuff and goods that the poor depend on are already VAT exempt; an attempt to reduce the tax burden on the poor. Reducing VAT will **not** reduce the price of these basic goods yet the introduction of a carbon tax will be passed through, with the end result that the price of basic goods will therefore increase overall.

It must be acknowledged that the market cannot protect the poor and is failing the poor. Justice will be better served through strengthening environmental regulation, ensuring stricter environmental standards and enforcement. Punitive measures can be taken against transgressors, and the income so derived can be used to support labour-creating, environmental rehabilitating initiatives as outlined below.

How did we get ourselves into this mess?

Firstly we have to acknowledge that all humans contribute to the environmental crisis through our lifestyles. "If no one is guilty of anything; if no one has failed, or fallen short, or let anyone down - then how can we go forward? How can we speak of righting wrongs, of addressing shortcomings, of

doing better? It is a recipe for accepting mediocrity and failure - and this is a disaster for our societies, for our nations; a disaster for all hope of moral and ethical living". Archbishop Thabo Makgoba. He was speaking of education but as in all things, we cannot move forward until we have acknowledged that the current system is the problem.

What kind of sustainable and inclusive development is needed?

We need a systems based approach that recognises our ecological limits. A system that aims for community development based on ecological resource integration. Our ecology must be part of the system not outside it. We are part of nature.

We need to restructure the current economic system away from that that values economic growth for its own sake. Economic development should be underpinned by ethical values that seek to improve the overall quality of life for all citizens and ensure we stay within our ecological limits.

We need to integrate with nature cycles. Nature does not have waste. We need to aim for zero waste, no pollutants, and no solid waste. By-products of one process can be used as inputs into another but throughout the entire system, we are aiming to restore our planet, to rehabilitate land, our air, our water and our plants and animals. It is not sufficient to do less harm.

In order to progress, monitoring and evaluation must be necessary. We must collect data and process it in order to report on our progress. Finally, we must celebrate our success. International monitoring and reporting can assist in these responsibilities.

Where do we start?

In 1995, the Department of Water Affairs had provided R25 million for alien vegetation eradication. This year, the budget is R1.1bn. According to the press, such programmes as Working for Water, Working for Wetlands and Working for Fire have contributed to the tangible benefits of improved environmental health and ecosystem function. 2 million hectares of land have been cleared, 25 000 jobs have been created, 54% of them for women^{xxiv}. Such programmes can be replicated in order to restore ecological systems, thereby improving the socio-economic conditions of local communities.

The Goedgedacht Trust project provides another example of sustainable development (see attached case study).

Producing solar panels and solar water heaters are industries that are located in South Africa, providing local jobs. Government policies could be directed towards maximising the benefits of such manufacturing sectors in order to grow jobs, and in doing so, help people gain energy security.

One study, carried out in 2003, showed that potentially, per unit of energy, solar water heaters could generate 100 times more jobs than nuclear energy, while renewable energy technologies in general could create 25% more jobs than coal per unit energy produced^{xxv}.

What role can the international community play in righting the injustices that exist globally?

A system of governance such as the United Nations where each country has a vote must be supported. Systems of international decision-making, particularly international finance institutions, that give extra votes to those with the most financial or economic clout must be opposed.

Joint but differentiated responsibilities need to ensure that those nations that have benefited from the global commons through exploitation in the past need to make reparations. However, those

countries from the “south” cannot continue to pursue the economic path historically taken by the “north” or the emerging industrial countries. New development paradigms must be unlocked, these must be situated within the global ecological limits and the underlying aim of such economic development must be the fulfilment of human dignity for all and not the pursuit of material riches for the global elite.

Bishop Geoff Davies of SAFCEI stated that “Every economic decision has a moral choice behind it”. One cannot legislate morality. International agreements are always left to interpretation and vested interests appear to lobby substantively to maintain the status quo - their vested interest relates to their own financial wellbeing, not overall socio-economic security located within an ecologically finite world.

In the lead up to COP17, faith leaders held several conferences in the continent and the Nairobi declaration called on world leaders to:

- “Commit to the principle of inter-generational equity, the rights of our children for generations to come, and to the rights of Mother Earth as outlined in the Cochabamba declaration.
- Refute the myth that action to cut emissions is too expensive, when it is far cheaper than the long-term costs of inaction.
- Acknowledge that investments in sustainability are a better guarantor of peace than military spending.
- Abandon Gross Domestic Product (GDP) as an indicator of prosperity in favour of indicators that include human wellbeing, equality and the external environmental costs of human economies.
- Set clear final targets for phasing out the use of all fossil fuels, and deep interim reductions in carbon emissions that support the target of no more than one degree of global warming.
- Ensure that there is sufficient climate finance for adaptation in Africa, additional to existing development aid and that it is governed inclusively and equitably under the United Nations.
- Channel sufficient and predictable climate finance and technology from the historic polluting nations, in recognition of their ecological debt, to enable Africa to leapfrog into an age of clean energy technology.
- Close the gap between wealthy countries’ pledges to cut warming emissions and what science and equity require.
- Assign for wealthy countries emission quotas that are consistent with the full measure of their historical responsibility^{xxvi}.

While this declaration was prepared for United Nations Climate Change conference (COP17) that took place in 2011, this is equally applicable to RIO+20 and to any gathering where international leadership sits to determine the world’s fate.

Aung San Suu Kyi^{xxvii}, the Burmese leader, awarded the Nobel Peace Prize in 1991 for her non-violent struggle for human rights and democracy, said: ‘the quintessential revolution is that of the spirit ... To live the full life, one must have the courage to bear responsibility of the needs of others ... one must want to bear this responsibility’

Diakonia Council of Churches will continue to point out uncomfortable truths to our government leaders - to indicate to them that we need to work towards long term sustainability that benefits all people of South Africa, alleviates poverty and improves well-being, and turn away from this fixation on short sighted material wealth gained by greed.

In the words of Bishop Geoff Davies, “The environmental crisis we face is not an economic or social crisis, or even an energy one. It is a deeply moral issue dealing with the future of life on this planet”.

Diakonia Council of Churches calls on our international partners to continue to support our struggles. In a globalised world, their role in pressurising their own home nations will also benefit us in the longer term.

The system that created the unequal societies that are driven by market forces was a global one. It needs to be addressed at a global level.

The global architecture that rewards trade-offs that favour short term financial returns and erosion of ecological assets should be dismantled. This includes international financing institutions that continue to loan money to coal fired power stations. It includes the reversal of trade rules that prevent nations from protecting their local industries, and justice at the international level cannot be reduced to which party has the deepest pockets to last through lengthy court cases.

What does the future hold for South Africa?

“Now, today, rightly harnessed, the power of knowledge, of true wisdom, can and must be deployed in the service of liberation and emancipation” - Archbishop Thabo Makgoba^{xxviii}.

South Africa, as with most of Southern Africa will be significantly affected by climate change. To the ordinary day to day livelihood struggles that ordinary Africans face, will be added the stressor of climate change.

Climate Change will further negatively impact on the resilience of our natural ecosystems to support us sustainably, yet Africans have not contributed to these global crises. Africa, and South Africa, can only survive within a globalised world if the current emphasis on Africa as a resource to be exploited, is reversed. Developed nations need to share their intellectual capital, and provide safe spaces where Africans can draw on our wisdom in order to forge a new world where cooperation is valued more than competition, where long term fulfilment of human need is valued above financial greed; and where all development decision-making is premised on a moral value system which acknowledges that God has given us the earth to look after – that we have a responsibility to be good stewards and that one day, we will be called to account for our actions.

“To be prophetic means to defend justice. It is a call to action – a response to challenges of human suffering and deprivation. ...It is a given that the church is an institution that is at the service of liberation, that is, liberating humanity from anything that may prevent it from living a life and living it to the full. It is with this in mind that we have not silenced our prophetic voice. To silence one’s voice at a time when it is most needed, as it is now, is a sin of omission. If our vision is of a transformed society, it follows that we ought to speak out and act against injustice^{xxix}”.

I thank you

Nomabelu Mvambo-Dandala.

This paper was specially prepared by Liz McDaid for Nomabelu Mvambo-Dandala, Executive Director, Diakonia Council of Churches, South Africa, as part of planning for her participation in the Speakers Tour, organised by Misereor in May 2012.

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Goedgedacht – A Case Study

Goedgedacht is a very beautiful old Cape Dutch farm situated on the slopes of the Kasteelberg, just 87km North West of Cape Town. Goedgedacht is now a busy community development centre from where a determined effort is being made to make a real contribution to the new South Africa.

Established as the Goedgedacht Trust in 1993 the Trustees have restored the beautiful old Cape Dutch buildings creating a spectacular 67 bedded venue for conferences, workshops, weddings and retreats. The philosophy of the Trust is to "Build People, Strengthen Community and Promote Democracy."

In response to a range of rural needs an increasing number of programmes and projects are located under the umbrella of the Goedgedacht Trust.

At the local level the Trust works with farm workers and their families setting in place development projects which we hope will change the face of rural poverty in the future. Our farm worker programme is called "The Olive Path out of Poverty" ...why olive? Because we aim to make our programmes sustainable in the future with the profits we make from our olive groves. Since 1994 olive trees have been planted each year and now make a high quality extra virgin olive oil from our own groves which is marketed under the Goedgedacht label. ^{xxx}

The Goedgedacht Trust made a commitment to tackle their energy issues, and make sure that they contribute to the solutions not the problems of climate change.

What happens if the rainfall is less?

In the area where Goedgedacht is situated, climate change models predict up to a third less rainfall. However, the area also has fog drifting in some of the early mornings. The farm has put up mist nets, which work on the same principle that sees drops of water forming on an ordinary fence in the morning mist. Extra water is stored, for use in the fields, vegetables and in the kitchen and conference centre.

What about waste?

Goedgedacht has a biogas digester which turns organic waste into energy. The organic waste is kept in an air tight container where anaerobic digestion (the material rots without oxygen) takes place, producing methane gas. This gas is then piped to the kitchen where it is used for cooking. Methane gas is 19 times more powerful than carbon dioxide as a greenhouse gas so rather than release it, use for energy.

Increasing your agricultural viability.

Climate change is likely to lead to a reduction in yields. How can one increase the value of the fruit so that even if you have less yield, you can still remain viable? If the fruit can be turned into jam or preserves, then the product will travel further without spoiling, and could be marketed further away than fresh fruit. Also, because it is processed, it is likely that the price of the jam would be more than the fresh fruit. Usually, to produce jam or preserves would need additional energy which, if it was electricity or LP gas, would add a cost to the production. In this case, the energy is free, methane gas from the organic waste.

Farming can be a physically demanding business and it is useful to get help when you can.

Goedgedacht has a pig tractor. Taking a square field and dividing into 4 plots, this is a way of rotational cropping. Each of the 4 plots will have vegetables growing at a different stage, one that has just been harvested, one about to be harvested, one which is still young and growing, one that needs ploughing and preparing for seed. This last one is the quarter that the pigs are in. their natural snuffling action digs up the ground and ploughs it while they compost the area with natural fertilizer. Once the pigs have finished preparing the ground, they are moved into the next quarter, the one where the vegetables have mostly been harvested. There, they will finish off the leftovers and then start ploughing!

Goedgedacht is using the heat of the sun wisely.

Goedgedacht has installed solar water heaters on the roofs, using the heat of the sun to heat water for washing. Such solar water heaters can be fitted with back up electricity for days when the weather is really overcast and the sun doesn't get through. Goedgedacht also has an array of solar photo-voltaic (PV) panels, to produce electricity for lighting.

List of sources for further reading:

- i <http://www.nature.org/ourinitiatives/urgentissues/rainforests/rainforests-facts.xml>
- ii <http://www.internationalpeaceandconflict.org/forum/topics/arms-trade-at-what-cost>
- iii <http://www.globalissues.org/article/26/poverty-facts-and-stats>
- iv South African National budget speech 2012 (page 9/36)
- v South African National budget speech 2012 (page 22/36)
- vi Confronting youth employment policy from South African Treasury (page 42/58)
- vii Confronting youth employment policy from South African Treasury (page 13/58)
- viii South African National budget 2012 appendix 8, medium term expenditure and division of revenue (page 9/22)
- ix Prof Clifford Shearing, University of Cape Town, January 2012
- x http://ccrweb.ccr.uct.ac.za/archive/two/7_3/p27.html; <http://www.hsrb.ac.za/Document-2689.phtml>
- xi South African Human Development Report, 2003, page 80
- xii South African National Planning Commission diagnostic report page 8
- xiii South African National Development Plan page 140
- xiv Bishop Geoff Davies – SAFCEI 2012 M&G 20-25 April 2012
- xv SA Human Development Report 2003, page 80
- xvi South African New Growth Path
https://docs.google.com/viewer?a=v&q=cache:8f3cCnWTDtGJ:www.moneyweb.co.za/mw/action/media/downloadFile?media_fileid%3D9594+new+growth+path+south+africa&hl=en&gl=za&pid=bl&srcid=ADGEESiX10Md-GGn88xzX7StO8MfKwsw_gnxovCOtH9QUFiHxu-i8GasBzzGwVD6mSoXUiCgKWv9wQQqwZC6nS5NzGvysv3UDuiyW1yeaN-Zr0geFlcrAID5hnMdwUKMZRsNVgVZILW&sig=AHIEtbQcyaUQF1EcUrZtesC2Q77Vbb3Yw page 3
- xvii South African National Development Plan page 14
- xviii South African National Development Plan page 125
- xix UNEP, 2011, Towards a green economy: Pathways to Sustainable Development and Poverty Eradication
- xx Impacts, Vulnerability and Adaptation in Key South African Sectors, LTMS input Report 5 (Summary report), ERC – UCT, 2007
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- xxii South African National Development Plan page 140
- xxiii Presentation by Treasury, at the IEP conference in Pretoria, March 2012
- xxiv Wait, Megan. Green Jobs, article in Engineering news vol. 32 no 8. March 9-15 2012 page 18
- xxv Agama Energy 2003. Employment Potential of renewable energy in South Africa. Report commissioned by Sustainable Energy and Climate Change Partnership (SECCP), Johannesburg.
- xxvi 8 June 2011:– This communique was compiled jointly by 130 faith leaders representing Muslim, Christian, Hindu, African Traditional, Bahá'í and Buddhist communities from 30 countries across Africa
- xxvii http://www.nobelprize.org/nobel_prizes/peace/laureates/1991/
- xxviii The Most Revd Thabo Makgoba is the Anglican Archbishop of Cape Town and Metropolitan of the Anglican Church of Southern Africa. Extract from his inaugural speech on his appointment as Chancellor of the University of the Western Cape, Feb 28th 2012.
- xxix Nomabelu Mvambo-Dandala, Diakonia Council of Churches Annual Report 2011, page 2
- xxx www.goedgedacht.org.za/