

**CONFIDENTIAL**

**EMBARGOED UNTIL PUBLICATION DATE: 21 SEPTEMBER 2011**

**THOUGHT LEADER**

**FUTURE PROSPECTS FOR THE SOUTH AFRICAN CARBON MARKET**

**Executive Summary**

- The European Union is the most active buyer of Kyoto Protocol carbon credits in the international carbon market, including those generated in South Africa. Among the reasons for the EU's activity in the market is the demand for Kyoto Protocol carbon offsets created by the European Union Emissions Trading Scheme (EU ETS) - the third phase of which runs from 2013 to 2020.
- Against the background of the international climate change negotiations and the *furor* over the reticence of developed countries to commit to binding greenhouse gas emissions reductions targets after the expiry of the Kyoto Protocol's first commitment period at the end of 2012, the EU has indicated that it will favour the group of Least Developed Countries (LDCs) for purchases of carbon offsets for use in the third phase of the EU ETS.
- In short, the EU's current position is that Kyoto Protocol carbon credits generated by greenhouse gas emissions reducing project activities located in non-LDCs that achieve formal registration under the Kyoto system after 31 December 2012, will be ineligible for use in the third phase of the EU ETS. This has come to be termed "EU ETS eligibility risk".
- As a so-called "advanced developing country" South Africa is not in the group of LDCs and has been specifically named by the EU as being excluded as a location for carbon credit purchases in the post-2012 period. Consequently, the EU position has serious implications for the future of the South African carbon market.

IMBEWU Sustainability Legal Specialists (Pty) Ltd, EcoMetrix Africa and Evolution Markets have drafted this Thought Leader to highlight this issue; and to provide insight into the relevant market dynamics and consideration of how South Africa should be responding to this challenge to the local carbon market, in order to defend its limited but growing place in the international market. This is particularly in light of the fact that the local market has finally begun to shrug off its initial lethargy as the potential created by the generation and monetisation of Kyoto carbon credits becomes more widely appreciated. The importance of this issue is brought into sharp focus with South Africa's hosting of the Seventeenth Conference of the Parties (COP17) to the United Nations Framework Convention on Climate Change (UNFCCC), scheduled to occur in Durban in November and December 2011.

**South Africa and the carbon market**

1. South Africa participates in the Clean Development Mechanism (CDM) as a developing country host of CDM project activities which seek to assist host countries in achieving sustainable development and to reduce greenhouse gas emissions. Properly executed CDM project activities result in emissions reductions which can be translated into Certified Emissions Reductions (CERs). CERs are a species of carbon credit and have a commercial value on the international carbon market.
2. The CDM is defined in Article 12 of the Kyoto Protocol and can be thought of as a mechanism to promote investment, by developed countries with greenhouse gas emissions reduction targets delimited by the Protocol, in emissions

## CONFIDENTIAL

### EMBARGO UNTIL PUBLICATION DATE - ENVISAGED PUBLICATION DATE 21 SEPTEMBER 2011

reducing project activities located in developing countries. In seeking to achieve their Kyoto targets, developed countries may supplement their own domestic action through the use of greenhouse gas offsets in the form of carbon credits, e.g., CERs which represent emissions reductions achieved by a CDM project activity.

3. To some degree the CDM works as a form of subsidy for clean energy and emissions-reducing projects, and as a channel for foreign investment into such projects by providing a source of funding (carbon finance) to projects that would, in the absence of the CDM, be financially marginal. A correctly implemented CDM project activity will also result in local benefit by virtue of its contribution to sustainable development as determined by the host country. Examples of project activities and their related benefits include:
  - a. Landfill gas mitigation projects which can have environmental benefits in the reduction of odorous landfill gas and a contribution to renewable energy generation, thus lessening the need for fossil-fuel generated power and, consequently, demand on the power utility.
  - b. Energy efficient cookstove projects which can have an environmental benefit in that they require the use of substantially less biomass for heat generation, thus improving air quality and lessening the pressure on biomass resources such as forests; and a social benefit in that less work is required for the gathering of fuel for the cookstove.
4. While South Africa is the continental leader in terms of number of CDM projects registered (19 as at the date of this Thought Leader), the country is very far from deriving the level of carbon market benefit currently enjoyed by China, India and Brazil which are, coincidentally, South Africa's partners in the BASIC grouping at the international climate change negotiations. <sup>1</sup> To date, as a result of a government-driven, proactive and supportive approach to CDM development, China has realised over €2.8bn in revenues from the issuance of over 325 million CERs generated by over 465 registered and operational CDM project activities located in that country. <sup>2</sup>
5. The largest group of CER purchasers is the set of greenhouse gas emitting installations included in the European Union Emissions Trading Scheme (EU ETS) - a cap-and-trade initiative in which participants are required to comply with prescribed emissions reduction obligations. In addition to achieving emissions reductions by limiting process inefficiencies, participants are permitted to utilise CERs as offsets to comply with part of their emissions reduction obligation. The EU has undertaken a collective emissions reduction target in terms of the Kyoto Protocol and the EU ETS is the mechanism through which a portion of these state-level obligations are transferred to the installation-level.
6. The past two years have been witness to a strongly increasing trend in the number of new CDM projects being developed in Sub-Saharan Africa, and South Africa in particular. Among the reasons for this trend are the CDM successes that have occurred (both in Africa and on other continents), which have proven the viability of the mechanism and deepened appreciation of the potential benefits of project implementation. In the absence of circumstances which disturb this trend, South Africa has the potential to take further advantage from CDM project implementation.

---

<sup>1</sup> Each of these countries is the location for, literally, hundreds of actual or potential CDM project activities.

<sup>2</sup> Source: UNEP RISOE CDM Pipeline 30<sup>th</sup> June 2011 ([www.cd4cdm.org](http://www.cd4cdm.org)). This figure is arrived at assuming a value of €8.00 / CER which is the floor (lowest) price that may be paid for a CER in China. This floor price is prescribed by government which also imposes a levy on CER revenues generated by Chinese CDM projects. Funds from this levy are applied to further CDM development. China is, arguably, the most successful CDM host country *inter alia* due to the approach taken by government in support of the CDM.

**CONFIDENTIAL****EMBARGO UNTIL PUBLICATION DATE - ENVISAGED PUBLICATION DATE 21 SEPTEMBER 2011****Exclusion of non-LDCs from the carbon market**

7. **Current EU policy is that, for the purposes of compliance in the third phase of the EU ETS (2013 to 2020), EU ETS installations will not be permitted to use CERs generated by CDM projects located in non-Least Developed Countries (non-LDCs) that achieve formal registration under the Kyoto system after 31 December 2012. South Africa is particularly mentioned by the EU as a country to which this restriction will apply.** Rather, the EU has announced that it will favour LDCs as CDM investment and CER purchase destinations in the post-2012 period. Effectively, this means that South African CDM projects registered after 31 December 2012 run the risk of finding only a very limited number of potential purchasers for their CERs, a factor that is likely to have grave consequences for the liquidity and size of the market and the value of the South African-originated CERs. South Africa therefore stands to lose out on hundreds of millions of Rands' worth of revenues derived from CDM projects.

**Graphic 1 – African & Asian Least Developed Countries**

The so called LDCs are assessed every three years against specific LDC criteria set by the UN Economic and Social Council (ECOSOC). With regard to the African continent, less than 25% of GDP is covered by LDCs. Of the 172 CDM project activities registered in Africa only 16 are located in LDCs and only one of which has issued CERs.

LDCs are shown in blue on Graphic 1.

**Box 1 – The EU ETS in the international climate change political arena**

- The EU's policy position favouring LDCs as the location for CER purchases in the post-2012 period occurs *inter alia* within the context of the notoriously variable international climate change negotiations. For this reason there is some concern that countries will use the CDM country eligibility issue as a bargaining tool in the climate negotiations. This could have negative implications for the CDM's longevity, as discussed in this Thought Leader.
- The EU has made a unilateral commitment to cut its greenhouse gas emissions by at least 20% of 1990 levels by 2020. The EU has also offered to increase its emissions reduction commitment to 30% of 1990 levels by 2020, on condition that other developed countries also make firm commitments to reduce their greenhouse gas emissions.
- The EU's Kyoto commitment is implemented in EU member-states via packages of domestic legislation, including national laws providing for the operation of the EU ETS. Due to the current uncertainty over the commitment of developed Kyoto country parties to binding emissions reductions beyond 2012, the EU has officially sought to permit, as eligible for use in the third phase of the EU ETS, only CERs generated by CDM projects registered after 2012 and located in LDCs. It still remains for individual member-states to translate this EU-level policy into their domestic legislation.

**CONFIDENTIAL**

**EMBARGO UNTIL PUBLICATION DATE - ENVISAGED PUBLICATION DATE 21 SEPTEMBER 2011**

**Box 2 - Factors influencing the possible evolution of the EU policy on LDC carbon**

- Uncertainty over whether the EU Energy Efficiency Directive will result in the volume of emissions reductions that would realistically permit the EU to limit its purchases of carbon offsets to LDCs.
- The ban, for use as offsets in the EU ETS, of CERs generated from the mitigation of Hydrofluorocarbons (HFCs) which commences on 1 January 2013. Analysts predict that this step has the potential to remove from eligibility for EU ETS utilisation up to a half of the current CER pipeline (see: [www.ideacarbon.com](http://www.ideacarbon.com)). The knock-on effect of this would be to create scarcity of CERs in the market, a consideration that flies in the face of the EU's proposed policy on CER eligibility in the third phase of the EU ETS.
- Recent confirmation that Germany will phase out its nuclear fleet by 2022 which is likely to result in an increase in greenhouse gas emissions, in that country, from power generation over the period approaching this date.
- The possibility (unconfirmed by the EU) of bilateral agreements in terms of which certain non-LDCs may be permitted access to the EU ETS market. India has recently announced that it will seek bilateral deals to help the country maintain its prolific role in the international carbon markets after 2012 ([www.pointcarbon.com](http://www.pointcarbon.com)).
- Support being offered to the future health of the carbon market by a range of capacity-building initiatives such as the World Bank Partnership for Market Readiness ([www.carbonfinance.org](http://www.carbonfinance.org)).
- The evolving dynamics within the negotiations on the future of the international climate change legal regime and matters incidental thereto – recent examples include:
  - EU Climate Action Commissioner, Connie Hedegaard, has reconfirmed the EU's intention to back a second Kyoto period provided that support for this position also emanates from other developed economies ([www.pointcarbon.com](http://www.pointcarbon.com)).
  - Australia and the EUA have agreed to begin talks to link their emissions trading schemes. The EU ETS has been in operation from 2005 and, in July 2011, Australia announced that it would seek to price carbon emissions from that country with a view to commencing with emissions trading by 2015 ([www.reuters.com](http://www.reuters.com)).

**Implications for the South African carbon market**

8. The South African carbon market is already experiencing serious knock-on effects of the EU's position and CDM project developers are currently facing a triple-dilemma:
  - a. To rush ahead with project development in the hope that they achieve registration prior to 31 December 2012 – this factor is already causing a bottleneck of work within the various operations of the professional service providers concerned.
  - b. To have faith in the robustness of the post-2012 carbon market, notwithstanding the current policy environment, and to proceed towards registration at a more considered pace at which, in the context of a process that is already fraught with difficulty, errors are less likely to arise. Without clarity on the EU ETS eligibility of South African CERs in the EU ETS in the post-2012 period this route has a number of inherent commercial and operational risks.
  - c. To forego project development altogether. While this route is the most likely solution for a number of potential project developers it also negates the possible benefits, including sustainable development benefits and flows of foreign capital investment into the country, which might accrue via the implementation of such projects.
9. That this issue has arisen at this point is ironic for a number of reasons. After years of slow development there are signs that the South African CDM industry may be shrugging-off its early lethargy and ramping-up project investment and development. Current momentum in project development is substantial, partly driven by the time-squeeze

**CONFIDENTIAL**

**EMBARGO UNTIL PUBLICATION DATE - ENVISAGED PUBLICATION DATE 21 SEPTEMBER 2011**

imposed by the EU's abovementioned position on LDCs. As per information from the UNFCCC, in addition to the 19 South African projects already registered by the United Nations, there are more than 100 projects in the pipeline and striving for registration before the end of 2012. While CDM development in South Africa has been slower than in some other advanced developing countries, what is clear is that momentum began relatively slowly around 2004 (the beginning of the CDM) and has seen exponential increase in the intervening period.

Project Type	Notified	Registered	Issuing
Renewable Energy	54	2	-
Energy Efficiency	15	3	1
Fuel Switch	2	4	2
Nitrous Oxide abatement	1	3	2
Bio-fuel (vegetable oil)	1	-	-
Industrial Process (industrial steam to energy)	3	1	-
Waste Management and Methane recovery	15	5	1
Cogeneration (furnace gas)	10	1	1
Transport	1	-	-
<b>Total</b>	<b>102</b>	<b>19</b>	<b>7</b>

**Table 1 – South African CDM projects**

“Notified” denotes projects in the pipeline seeking registration as CDM project activities.

“Registered” denotes projects have been formally registered by the UN.

“Issuing” denotes projects that have or are in the process of issuing CERs, i.e., that have completed the full project cycle to achieve periodic award o CERs.

Table 1 demonstrates that waste; renewable energy, e.g. wind, hydro and solar; and, energy efficiency, e.g. efficient turbines and lighting are the categories with the most activity. All these sectors must still be regarded as entrepreneurial in South Africa, i.e., without an established and mature market. Consequently, CDM revenues will be important to improve return on investment, such that the development risk is worthwhile.

Source: UNFCCC and EcoMetrix Analysis

10. **Municipal CDM:** A single example of a sector that has seen a recent and marked increase in CDM interest is the municipal sector which seems, finally, to have taken cognisance of South African examples of successful municipal CDM project activities, e.g., eThekweni Metropolitan Municipality’s landfill gas to power generation project located in Durban, and to have solved the municipal procurement *impasse* which has been a contributing factor in keeping local government out of the CDM. This interest is evidenced by the increased number of calls for proposals for CDM project development that have been issued by municipal procurement departments and elevated levels of municipal interest in the CDM. Tenders have recently emanated from eThekweni Metropolitan Municipality and the City of Cape Town Metropolitan Municipality; and, the City of Tshwane Metropolitan Municipality is currently seeking to run capacity building workshops on the CDM for senior municipal officials. In short, now that South African municipalities have, at long last, acknowledged the CDM benefits (including sustainable development and financial) that can accrue to them, the plug is in danger of being pulled on the CDM in South Africa by the policy position of the EU. There is a further irony in the fact that South African municipalities are seeking to move ahead with CDM development when taken in the light of recent EU announcements that it is committed to assisting in development in South Africa and is providing increased financial support in this regard. As certain commentators indicate, the irony stems from the fact that the EU, simultaneously with pledging increased development support, is seeking to remove the potential for South African CDM projects to access the largest portion of the carbon market, which has great potential to act as a driver for development.

**CONFIDENTIAL**

**EMBARGO UNTIL PUBLICATION DATE - ENVISAGED PUBLICATION DATE 21 SEPTEMBER 2011**

**South African Policy Context – markets are part of a comprehensive climate change response package**

11. The long term articulation of South African climate change policy, the Long Term Mitigation Strategy scenarios (2008), determines that market-based mechanisms must be part of the country's response to climate change. This thinking is continued in the Green Paper on South Africa's Climate Change Response Strategy (2010) which clearly identifies the CDM as part of these mechanisms. Consequently, stated South African policy on climate change includes ongoing use of the CDM.
12. "The current importance of this post-2012 market issue relates to the imminence of COP17," says IMBEWU Director, Andrew Gilder. He continues: "It is vital that South Africa, along with other non-LDCs, responds firmly to the EU's position on the carbon market". Coupled to the EU position is the idea that advanced developing countries, including South Africa, should move to sectoral emission reductions rather than continuing on the path of project based emissions reductions – such as the CDM. "While there is some merit in this notion", says Gilder, "it also ignores the fact that a move to sectoral emissions reductions will, of necessity, occur within the context of the ongoing climate change negotiations and it is unlikely that the Durban meeting will pay much attention to the issue of sectoral targets or how and when these may be achieved". Referring to the market, Gilder continues: "In the absence of the CDM, or of relevant domestic regulation, this would mean that there would be no market-based incentive for the South African public and private sectors to reduce their greenhouse gas emissions. By contrast, the CDM already provides this kind of incentive".
13. Brett Jordaan, Vice-President with an African focus at Evolution Markets provides the following perspective: "As a developing economy, South Africa is still very much dependant on international capital flows to stimulate investment. A key historical determinant driving capital flows is the unrestricted and efficient functioning of capital and commodity markets, among others. South Africa's economic development over the past decade has been closely tied to its burgeoning resource-based markets and the country's response to climate change mitigation needs to take this into account in order to derive maximum value. In this context the EU-ETS and CDM may also be viewed as market-based mechanisms that allow the private sector to efficiently allocate capital in the most effective manner".
14. The theme of the CDM as an instrument to promote capital flows and greenhouse gas emission reductions is elaborated by Lodewijk Nell, Director of Consultancy at EcoMetrix Africa. Nell notes, "There is a lot of value in an established financing instrument which is well-known to many investors, traders and project developers. It would be an incredible waste if this instrument is lost while there is still great uncertainty as to a replacement or how such a replacement might work".
15. Nell's comments must be seen against the background provided by negotiations on the structure of the Climate Green Fund (Fund) which is intended as a future mechanism for funnelling climate finance to developing countries. Minister in The Presidency Responsible for the National Planning Commission, Trevor Manuel, is part of the Transitional Committee currently working on the structure of the Fund. Minister Manuel has expressed the ambition of procuring billions of dollars for South African from the Fund to finance, for example, South Africa's Nationally Appropriate Mitigation Actions (still to be negotiated and agreed at the international level). While the Fund is placed among the limited number of items that are likely to be agreed on in Durban, the idea that the Fund will be the panacea for climate finance flows is misguided. The agreement on the Fund that is likely to emerge from COP17 is

## CONFIDENTIAL

## EMBARGO UNTIL PUBLICATION DATE - ENVISAGED PUBLICATION DATE 21 SEPTEMBER 2011

around its structure and function and not how the Fund will be financed. Currently, and notwithstanding certain pledges of finance that have been made by developed countries, the levels of finance available to the Fund are nothing like the US\$ 30 billion between 2010 and 2012 or the US\$ 100 billion annually by 2020 that was committed by developed countries at UNFCCC COPs 15 and 16 (respectively in Copenhagen, Denmark – 2009; and, Cancun, Mexico – 2010). As Minister Manuel has warned “...it is “easier extracting teeth than getting them [developed countries] to part with their money,” ([www.engineeringnews.co.za](http://www.engineeringnews.co.za)). Echoing this sentiment a recent Bloomberg White Paper (*Towards a Green Climate Finance Framework*, 1 September 2011) is also strongly of the view that the required levels of funding will never materialise if the present focus on the public sector as the origin of this finance is maintained.

16. “Establishing implementation mechanisms for new streams of climate finance within the elaborate processes of the climate negotiations, and their subsequent and effective roll-out will take many years before any substantial market impact will materialize,” continues Nell. “It simply does not make sense to dismantle a mechanism that is working in favour of a mechanism that might achieve similar objectives but which is years away from effective implementation,” he concludes.

## Key messages on the road to COP-17

1. **Market players are looking anxiously towards COP17 and actions that may / can be taken in the negotiations by representatives of non-LDCs in defence of the non-LDC component of the carbon market.** To date, India appears to be the only non-LDC that has announced its intention to take action on behalf of its share of the market – by seeking bilateral agreements in this regard. However, even if non-LDCs pursue the uncertain route of bilateral agreements it is likely that their finalisation will take some time during which period the abovementioned market certainty will continue to prevail.
2. **Without any clarity on EU ETS eligibility of CERS generated by CDM project activities located in non-LDCs, including South Africa, beyond 2012; then, from December 2011 onwards, all investment in CDM projects outside of LDCs is likely to cease.** The costs involved in registering a CDM project activity are simply too high and the process too lengthy and intensive for project developers/owners to bear these risks without certainty that the CERs potentially to be generated by such project activities will have a minimum value and a source of demand. Likewise, liquidity is likely to dry up as the few buyers that do not have to deal with EU ETS eligibility risk may be faced with an over-supply of CERs. Over-supply of a commodity is fatal to the health of any commodities market.
3. **In the absence of access to the CDM market South Africa stands to lose an existing and tested opportunity for implementing projects that can contribute to the country's transition to a low-carbon economy.** These losses will extend beyond investment, to employment, technology transfer and importantly, energy supply. Considering all the challenges facing South Africa from a socio-economic and energy perspective, it is imperative for the country to utilise all available avenues for development, including the CDM.
4. **South Africa is urged to defend its nascent carbon market in the international arena and to take action to nurture and grow the market.** Such defensive and actions may include:
  - a. Firmly responding to the EU's position on non-LDCs in the post-2012 carbon market and confirming the importance of the LDC contribution to the future health of the carbon market as a whole.
  - b. Notwithstanding the concerns expressed above, engaging with the EU and other players, such as Australia, on the potential offered by concluding bilateral agreements that would ensure the eligibility of South African carbon in those markets.
  - c. Engaging with private sector carbon market players in order to inform government's position with the information / expertise present in this sector.
  - d. Participating in initiatives intended to support future development of the market, e.g., the World Bank Partnership for Market Readiness.

**CONFIDENTIAL**

**EMBARGO UNTIL PUBLICATION DATE - ENVISAGED PUBLICATION DATE 21 SEPTEMBER 2011**

**About the Authors:**

- **Andrew Gilder**, leads IMBWU's *Climate Change and Carbon Markets Practice* Contact details: Tel: +27 11 214 0660/1 / +27 (0)82 962 2520 / [andrew@imbewu.co.za](mailto:andrew@imbewu.co.za) and [www.imbewu.co.za](http://www.imbewu.co.za).
- **Lodewijk Nell**, Director Consultancy at EcoMetrix Africa has more than 10 years of experience in the development and financing of new energy technology projects that reduce greenhouse gas emissions. He is responsible for advising clients regarding carbon management and financing as well as climate change response strategies. Contact details: Tel: +27 (0)11 463 1009 / +27 (0)78 704 2678 / [lodewijk.nell@ecometrix.co.za](mailto:lodewijk.nell@ecometrix.co.za)
- **Brett Jordaan**, Vice President at international brokerage firm Evolution Markets, handles the firm's involvement in African Markets, with a focus on CDM projects in particular. Brett has been actively involved in the global carbon markets for a number of years and works with project owners and developers in Africa to structure long-term forward purchase agreements, for the credits arising from CDM projects, with international buyers. Contact details: Tel: +44 (0)20 7264 4586 / +44 (0)79 4786 4783 / [bjordaan@evomarkets.com](mailto:bjordaan@evomarkets.com)