

EXECUTIVE SUMMARY

BACKGROUND TO CDM

The South African Government has ratified the Kyoto Protocol and subscribes to the ideals of the UN Framework Convention on Climate Change as mentioned in various National Communications to the UN. The objective of the United Nations Framework Convention on Climate Change (UNFCCC) as stated in Article 2 is to stabilize greenhouse gas (GHG) concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system. This objective is to be pursued in a time frame that allows ecosystems to adapt naturally to climate change, so that food production is not threatened, and at the same time allowing economic development to proceed in a sustainable manner. Other areas of threats include flooding, submergence of low lying areas due to the rise in sea levels, spread of tropical diseases, loss of wildlife areas, coral reefs, the acidification of sea water, slow down of ocean currents regulating global climate such as the Gulf Stream. The UNFCCC urges cooperative efforts by interested Parties to the Convention in order to positively address climate change via its political plenary the Conference of the Parties which utilizes the adoption of the Kyoto Protocol as its implementation instrument. The Kyoto Protocol is an international instrument that provides for specific co-operative mechanisms that can be used to achieve the emission reductions required in the developed countries. One of these, the Clean Development Mechanism (CDM), allows developed and developing countries to work together to achieve the objectives of the Protocol.

The Kyoto Protocol to the UNFCCC defines distinctive roles and responsibilities of Developed and Developing countries in relation to measures taken to reduce climate change. It proposes the Clean Development Mechanism which defines how Non-Annex I countries (developing countries who do not have quantified emission reduction obligations) to the UNFCCC can achieve sustainable development while assisting in mitigating climate change, either independently or with Annex I countries (developed countries who are obliged to reduce emissions) who can utilize emission reductions emanating from such projects for their own compliance purposes.

Developing countries have a varied propensity to offer opportunities for CDM projects to be located in their territories. This is dependent on their current state of development, natural and climatic endowments, energy profile and consumption, and institutional readiness & capacity.

Attracting CDM investment is regarded as a competitive process which mirrors efforts of attracting Foreign Direct Investment (FDI). Hence developing countries will have to ensure that their economies offer market potential, policy congruency, financial/non financial inducements, and efficient institutions to promote and attract CDM investment. CDM is a relatively new area of FDI and the approach that various countries are employing to attract this investment and the manner in which other developing countries are pursuing this investment holds lessons for South Africa. Due to the novel nature of CDM and an evolving rule based system within the UN, very few countries have developed extensive experience or mechanisms to attract or pursue such projects. Those that have done so are pioneers and constantly rely on the evolving nature of the procedures to guide them in implementing CDM projects.

Beyond the environmental objectives of the Convention, the CDM presents South Africa with an opportunity to assist in meeting varied domestic objectives. The key areas of interest for South Africa relating to CDM are to utilize the CDM to leverage foreign investment (and hence create employment opportunities) in the sectors that may be able to achieve emission reductions, utilize CDM investment to promote various policy initiatives that could also contribute to emission reductions, use the CDM to leverage the transfer of technology that could underpin the achievement of policy objectives relating to increased competitiveness and value addition.

OVERVIEW OF THE STUDY & SCOPE OF THIS REPORT

The main objective of this study was to develop an investment strategy for implementing the Clean Development Mechanism (CDM) in South Africa. An investment strategy was thus formulated in the context of the policy environment currently in play to understand the manner in which CDM could reinforce key policy areas of Government. The study also delved into what key developing country competitors have accomplished regarding CDM institutions (such as the Designated National Authority), procedures, incentives, and promotion. Another key area of analysis focused on the how developed country investors have responded to CDM in terms of their policy framework, institutions, and implementation. The study then draws together the implications for policy makers, and suggests key steps or decisions that have to be made in order to implement an effective investment strategy.

This report thus analysed the following areas:

- Policy consistency and reinforcement by CDM in various key SA policy areas by looking at the objectives of major South African policy areas that would be reinforced by CDM such as energy, renewable energy, air quality, transport policy, agriculture forestry, industrial policy, and technology.
- A determination of how domestic incentives can lower transaction costs for CDM by lowering the cost implications for CDM project activity and how domestic incentives can lower transaction, export, technology and investment costs in South Africa.
- How incentive and investment promotion agencies can adapt to support CDM projects locally, especially how Trade and Investment South Africa as the primary investment promotion organization can meet the challenge of effectively promoting CDM investment as part of its mandate of attracting FDI into the country
- A view on how **the dti** (via its Enterprise Organization) can accommodate CDM incentives both structurally and within its various schemes that could lower costs for such investments.
- What developing countries are doing to attract CDM investment, in this regard the report examines the experiences of three developing countries namely; Brazil, India, and China, and seeks to clarify how these CDM players have created institutions, procedures, and how coordination takes place in order to facilitate CDM projects in their jurisdictions. An analysis of how these three countries try to offset costs for CDM projects by instituting various domestic incentives and measures including how they support Designated Operating Entities. A sense of how CDM projects are promoted in these countries is also covered.
- How developed country investors in Netherlands, Denmark, and the UK are targeting potential CDM investment destinations and the key lessons for South Africa are considered within the following context; the various institutions, procedures, and structures that assist in outward CDM investment facilitation. Further, the support structure and vehicles as well as the current sector focus of these countries are analysed, the factors used by these investor nations in assessing the attractiveness of developing country destinations are also considered.
- The role of global institutions, rules and procedures to enable CDM projects; including the UNFCCC and its related Protocols and institutions which have oversight over the CDM process will be unpacked together with the processes that arise for the

successful implementation of CDM projects, the roles of the Designated National Authority and how South Africa can foster local Designated Operating Entities will also be examined within the context of these global agreements. A consolidation of the current areas of international investment and the relevance for South Africa will be drawn out to suggest sectors with the highest potential for CDM investment in the South African context.

KEY FINDINGS & RECOMMENDATIONS

CDM and policy environment

This study found that Government has a series of policy measures and instruments to address sustainable development in South Africa. In order for these policy measures to be successful it is critical that an enabling economic environment conducive to growth that promotes employment and equity is prevalent. CDM investment presents an opportunity for Government to attract foreign and domestic investment that will support a number of policy objectives, including a cleaner environment, employment, competitiveness, technology transfer and diffusion, sustainable transport and energy infrastructure.

CDM projects can contribute to achieving government policy objectives in areas related to, energy policy, renewable energy strategy, air quality management, clean fuels policy, transport policy, agriculture policy, relevant industrial sector strategies, & technology transfer policy. The CDM projects utilize the financial benefits accruing from emission reductions in many areas where it supports policy to make marginal or unprofitable projects viable. In each of the policy areas studied, specific CDM projects that would support the policy were identified. A summary of the areas where CDM projects would support various South African policy areas is included below:

CDM projects support policy initiatives in the energy sector in the area of access for disadvantaged & rural households, using broader energy sources, efficient coal processes and technology. Renewable Energy CDM projects include wind, waste, hydro, solar, biomass, bio-fuels, wave/ocean and geothermal activities. Air quality policy is supported by CDM efforts that focus on air quality standards relating to nitrous oxide GHG emissions.

Agriculture & forestry projects improve market access, competitiveness, & sustainability via manure handling, enteric fermentation, & afforestation. Industrial policy CDM projects can be argued on the basis of increased competitiveness, employment & market access – project areas include waste stream treatment, organic fuels, recycling chemical waste, vehicle emission technology, and energy consumption technology. Technology transfer environmental support is central for various industrial sectors that focus on cleaner production, innovation, diffusion, & energy savings.

Thus it is apparent that CDM does not oppose policy in key areas of the environment, energy, agriculture, forestry and industry. It can be argued that CDM projects will reinforce policy objectives and in many instances even facilitate the achievement of key policy goals. There are areas that CDM could pose new questions relating to how South Africa maintains a competitive cost advantage as new and costlier energy sources are explored but these would be offset by the environmental and market access gains that CDM would offer in the short term.

Key recommendations in the policy area would be to have CDM included in the South African policy debate in the various areas considered for this study. Its existence and implementation is seen only as an addendum that supports various policies, more by accident than by design. The study has shown that currently CDM is the concern of small sections of a select number of Government Departments mainly concerned with climate change, energy, and economic issues. International experience of how CDM is integrated at a Government level in Brazil, China and India indicate that CDM tends to be elevated to the highest level of policy making and coordination in all three countries. CDM projects implemented tend to enjoy the support of the highest political office and a mechanism exists at a coordination level for CDM to be integrated into various policy organs and processes. It is thus proposed that CDM is elevated to the level of the Cabinet Economic Cluster and ultimately the Cabinet as this would broaden the scope for CDM to take root in a variety of sectors in the country, where it can support implementation efforts.

The role of incentives, incentive organizations & promotion structures

The study shows that major developing country competitors for CDM investment have not yet embarked upon an aggressive or proactive campaign to attract CDM. The main focus to this point has been to set up efficient DNA's and utilize this together with the natural and market advantages of each country as a means to attract CDM projects. The main drivers of CDM projects to date have been the institutions of developed countries including donor assistance programmes that have focussed on capacity building and project implementation. This is bound to change as the benefits of CDM become more apparent and widespread. South Africa will also need to create efficient DNA approval structures and processes together with a set of incentives that will lower the cost of CDM activity.

The study indicates that incentives have a role to play in various areas of CDM implementation. These include lowering costs associated with the Project Activity Cycle such as establishing baseline methodologies, new methodologies, monitoring costs, DoE validation and verification, project registration, environmental impact assessment & fostering local DoE. These costs could in the main be offset by schemes such as the competitiveness enhancing incentives and grants include in the main funds such as the Competitiveness Fund (CF), & the Sector Partnership Fund (SPF). These schemes are designed to assist firms improve their competitiveness by applying better environmental practices or improve their innovative ability via technology development. Ongoing costs for monitoring could also be offset by these schemes. The current training grants can be provided to services sector firms via the services Skills Education & Training Authorities (SETA) for the acquisition of new skills by firms seeking to enter new areas of service eg. for DoE's to acquire skills.

It is also apparent from the study that many policy areas that advocate subsidies which could with investment support schemes improve the marginal nature of many CDM projects. The investment incentives that could be accessed include those targeted at investments under R100m such as the SMME Development Programme, or the Strategic Investment Project scheme for projects bigger than this which meet criteria set out for eligible projects. Other preferential financing models available from IDC and DBSA (especially PCF financing) offer opportunities for investment finance. The existence of schemes such as the Umsobomvu Youth Fund, Risk Capital Facility, and NEF ventures funding can also be targeted by CDM projects. Accessing technology enhancing support is possible via schemes such as the Technology Innovation Schemes (Support Program for Industrial Innovation (SPII),

Partnership for Industrial Innovation (PII), Technology Human Resource in Industry Programme (THRIP), & Innovation Fund). These schemes would thus be available for projects involved in innovative technology activities in the CDM arena. The Export Marketing Investment Assistance scheme can be utilized to assist in export support activities for CDM projects could also lower transaction costs and offer South Africa as a competitive destination. This would include exhibition assistance and the use of inward buying or outward selling missions

The main recommendations regarding the organizational structures for incentives and promoting CDM are given in light of the areas where South Africa can outpace its competitors to attract CDM investment. It has been shown that the country, via Trade and Investment South Africa, has a widespread international network of promotion resources and a set of incentive schemes that could assist CDM project participants in a number of areas such as procedural costs, investment establishment, and even in export support. TISA has indicated its willingness to play this role, and the next step would be to formalize this role with the DNA. Clear targets for CDM investment, a strategy, and a business plan to attract this investment would need to be decided between the DNA and TISA. The majority of incentive schemes in South Africa are administered by The Enterprise Organization (TEO) and it would thus be imperative that the DNA utilize these resources in a structured and agreed manner that benefits CDM projects. In a similar manner incentives and subsidies from other agencies in Government should also be utilized in an agreed manner.

Utilizing lessons learnt from developed and developing countries studied

The benchmarking exercise involving Brazil, India, and China sought to understand the manner in which these countries have established their DNA institutions, the procedures governing these bodies, and the role of international agencies. An analysis of how these three countries try to offset costs for CDM projects by instituting various domestic incentives and measures including how they support Designated Operating Entities was also undertaken. A sense of how CDM projects are promoted in these countries was also covered. CER's do provide valid incentives for CDM projects to get off the ground, yet the existence of additional incentives offer a competitive edge which all developing countries will eventually utilize to attract further FDI.

Assimilating best practise garnered from these nations indicate that they have positioned the focal point (DNA) to be representative of a wide range of interests in Government that range from the environment, forestry, science & technology, external affairs, economic affairs, agriculture, mining & energy, transport etc. The status of the CDM institution is also elevated politically and international assistance widely accessed from developed countries via bilateral and multilateral agreements. The sectors targeted by these developed countries are in the areas of energy, renewable energy, industrial/engineering processes, fuel switching, mono culture plantations, hydro schemes, and agriculture.

It is clear from the study that developing countries have not as yet actively pursued CDM investment, relying mainly on market power or natural advantages to attract CDM projects. The objective of lowering costs and creating efficient approval mechanisms for project participants is a common feature of the procedures laid out for approval by all the developing jurisdictions examined. The main aim has been to ensure that processes associated with the DNA do not add substantially to costs and that red tape is cleared for project participants. As such no specific emphasis has been placed on offering incentives or focussing current government resources in attracting CDM. This has also been the approach towards how DOE's are supported in the local economies, with no overt policy or assistance for local DOE creation.

The key recommendations coming out of this benchmarking exercise and the examination of developed countries can be summarised as follows. The CDM institution/DNA would need participation of the economic, environmental, mining, energy, housing, public works, forestry, agriculture & transport sections of government as well as the policy sections of the Presidency in order to integrate CDM across government and to raise the profile domestically and abroad. The location of the DNA in government can be varied, but the key principles are that the hosting section of Government has the ability to assess projects on a multitude of criteria that will affect the economy and sustainable development such as environmental sustainability, net employment creation, rent/equity distribution, effect on Balance of Payments, macro-economic stability, cost effectiveness, & technology innovation. Resources for the operation of the DNA need to be allocated by the hosting section of government in order that the institution can perform its function effectively and efficiently. An efficient secretariat to ensure smooth approval by the DNA is imperative, and this needs to be properly skilled and resourced. The DNA should be able to distribute donor and other funding for

capacity building or direct project implementation. The DNA also serves the function of the interface between the host country and possible private and public sector investors. Hence the DNA needs to act as a facilitator of CDM projects for both local and international players. This role is also one of interpreting rules set out by the Executive Board and in some instances clarifying host country approaches to specific controversial rules.

CDM institutions, rules, & procedures

An analysis of the global institutions, rules and procedures for the CDM process indicates that it is highly regulated by the UNFCCC, the Kyoto Protocol, and the institutions this has given rise to, such as the Executive Board and its scientific and accreditation panels. These institutions form a hierarchy that dictate the rules and procedures for project participants. This results in businesses having to understand the complexities of the UN system and a currently evolving set of rules and regulations relating to CDM. The COP has created a set of procedures that will enable project participants and other parties to understand the mechanisms in which these rules operate. Many of these rules add to the cost of projects in CDM and are out of the control of the businesses wishing to participate in CDM project activity. At this point, the market is still developing pricing mechanisms for various costs involved in CDM projects and this will help South African businesses evaluate how it can contain costs and also price services for CDM projects.

The process does offer business and investment opportunities and these needs to be understood in the above context as well as the ability of the CDM process to assist in economic growth, employment, and revenue. Many of these areas will need Governments and the UN Special Funds on Climate Change to ameliorate these costs. An understanding of the processes and procedures as laid out by the UN is required to maximize these benefits.

South Africa stands to be a beneficiary of this CDM process both in terms of investment and business generated for local DOE's if it can apply its resources in an intelligent manner to enable these projects and businesses to thrive in the CDM environment. The country also needs to ensure that it has a broadly representative DNA that can immediately start approving and facilitating investment activity and interfacing with governments of Annex 1 Parties interested in investment facilitation. Potential investors have to understand the project activity cycle and the roles and responsibilities of various stages. The role of the DNA is paramount

so that various players in the CDM process have access to an efficient and effective organization. This would include project participants seeking approval by the Executive Board, interface with investor countries, or interface with potential project participants. The procedure for Designated Operating Entities to register and follow accrediting standards is set forth in the study together with the skills required by aspirant DOE's.

Summary of recommendations

The following key recommendations emerge from the areas considered:

- Ensure that CDM is deliberately factored into the policy debate in the various areas covered by this study and also in those areas where it could have an impact such as housing, public works, finance, forestry, science & technology etc. The mechanism advocated to encourage this broader debate is the Departmental Clusters of the economic and social arms of Government, the Cabinet Economic Cluster and ultimately the Cabinet. The manner in which CDM is positioned in Government is also imperative and the inclusion of the Presidency in CDM project launches is advocated.
- The DNA, which has to be well resourced, needs to have the same widespread representation and be elevated to the same extent in the government in order to integrate policy across a wide range of policy areas. While the location of the DNA in Government can be varied, it is highly dependent on the ability to assess projects on a multitude of criteria that will affect the economy and sustainable development such as environmental sustainability, net employment creation, rent/equity distribution, effect on BoP, macro-economic stability, cost effectiveness, & technology innovation. The DNA would also have to serve as the facilitator of investment and acts as the interface with other agencies such as Trade and Investment South Africa and the Enterprise Organization of **the dti** to implement a CDM programme. This includes providing clarity on UN processes, decisions and institutions for project participants in South Africa.
- It is advocated that the promotion function for CDM be mandated to **the dti**/Trade and Investment South Africa, which currently has a network of internationally based investment promotion offices in destinations currently exhibiting the largest outward flow of CDM investment funds. TISA is keen to undertake this role and a measure of

training in CDM would need to be put in place by the DNA via service level agreement with TISA.

- The issue of accessing incentives for CDM project costs, investment, and export purposes would require that the DNA engage with The Enterprise Organization of **the dti** which is keen to incorporate CDM projects into consideration for its incentive processes. Again, an understanding between the DNA and TEO is needed to ensure that CDM projects have a seamless route between the application processes of both agencies. A similar approach would be necessary for other institutions that offer other forms of incentives relating to technology, price subsidies, and innovation.