5. CONCLUSION AND RECOMMENDATIONS

5.1. OVERVIEW

The benefits of CDM projects that South Africa seeks to capitalize upon include technology transfer that boosts competitiveness, securing & improving market access with trading partners, improving growth and job creation, & improving the environment with regard to air quality. The main objectives of South Africa with regard to CDM are thus to secure foreign and domestic investment, reinforce and support policy initiatives that could contribute to emission reductions, and secure technology transfer that underpins these other broad policy objectives. An investment strategy for CDM in the South African context has to consider a variety of factors which have a material impact on its successful implementation. These have been analysed in order to gain certain key lessons for the South African context.

The study has concluded an investigation into the following areas:

- An analysis of specified current policy imperatives that are reinforced or supported via the use of CDM investment.
- A determination of whether and how current incentive schemes are used to offset CDM investment cost preparation, and institutions such as Trade and Investment South Africa and the Enterprise Organization's ability to assist in CDM investment promotion and support.
- An analysis of three specific competitor countries (Brazil, India, & China) for CDM investment as well as three specific countries (Netherlands, Denmark, & UK) that are possible sources of CDM investment into South Africa. Benchmarks of these two groupings against parameters are included.
- International obligations/rules and procedures of CDM as well as institutions that facilitate compliance with these procedures. Sectors for South Africa to target for initial CDM investment and mechanisms to foster Designated Operational Entities in the local economy.

5.2 KEY FINDINGS, LESSONS & RECOMMENDATIONS

This study is thus able to draw out the key findings and recommendations in specific areas analyzed which may be able to contribute to a South African Investment Strategy for the Clean Development Mechanism. These would include the following areas:

- How CDM can support or reinforce specific national policies
- Promotion of CDM investment – structures, incentives, sectors/areas of focus
- The functions, structure and operations for the DNA emerging from international experience
- Promotion of domestically located Designated Operating Entities
- Ownership issues relating to Certified Emission Credits
- Awareness raising and training around CDM

5.2.1. How CDM can support or reinforce specific national policies

CDM offers definite opportunity to attract investment in a way that reinforces a number of policies in South Africa though it does not impact upon all policy measures. This is illustrated by the specific policy measures that are actually reinforced by CDM project activities. It is very clear from the study that key policy considerations such as that related to energy, renewable energy, air quality, transport, agriculture, forestry, technology, and industrial policy are directly affected by CDM projects. CDM is not in conflict but reinforces many of these policy areas in varying degrees and in some instances actively supports policy by enabling implementation of policy via CDM projects.

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. Thus in the absence of CDM credits and other financial support many projects that support various policies would not be financial viable and thus not be able to actualise certain policy objectives. A summary how CDM can support various South African policy areas is included below:

Table 8: Summary of policy implications

POLICY AREA	FOCUS & PROJECT SUPPORT
Energy	CDM promotes energy access for disadvantaged & rural households using grid & non-grid options, encourages energy efficiency projects, allows utilization of wider energy sources, promoting efficient coal extraction processes and technology innovation.
Renewable Energy	CDM makes possible marginal wind, waste, hydro, solar, biomass, bio-fuels, wave/ocean and geothermal activities - allows these RE CDM projects a chance of lowering costs in relation to cheaper coal based generation. RE policy promotes diversification of supply away from coal based energy by actively using CDM, GEF, PCF and ODA sources. RE technology development goals will occur if CDM enables a transfer of technology eg. wind turbine development.
Air Quality	CDM can act as an incentive for compliance with the proposed legislation. While the Bill goes beyond GHG emissions, it supports the wider air quality levels proposed. CDM projects enable the Bill to address environmental concerns while addressing employment and competitiveness issues. CDM projects have to ensure that other emission controls are not breached.
Transport	Transport policy is located within environmental and economic sustainability parameters. Fuel switching projects offer the largest CDM opportunities and the sector is consumer of the largest portion of liquid, but CDM projects will hinge on cleaner fuel technology and costs. The taxi re-capitalization process could use CDM credits to offset implementation and operational costs. Consumption taxes could act as a catalyst for CDM project viability.
Agriculture & Forestry	Strong CDM emphasis for both agriculture & forestry due to integrated rural sustainable development. Strong focus for CDM making small scale projects viable due to marginal nature of the sectors in GHG. Major project support from CDM would enable better market access, & projects in manure handling, enteric fermentation, & a-forestation supporting efforts.
Industrial policy	The IMS and its implementation mechanism the CSP sets out industrial policy and key drivers for beneficiation, competitiveness, employment & market access. CDM is an investment lever in the current chemical and petrochemical CSP in the areas of waste stream treatment of the pulp/paper for high value by-products, mineral recovery from coal ash, the production of bio-fuels, using chemical waste as an energy source, and producing bio-chemicals from local crops. In the automotive sector CDM projects easily incorporated into the CSP include emission lowering technology within catalytic converters, energy efficient engines, production line processes, as well as the use of less carbon intensive materials. The capital equipment CSP would easily incorporate those CDM projects that are designed to lower emissions and energy utilization of final products. The production processes and materials used are also possible CDM projects that can be incorporated into the CSP for capital equipment.
Technology Transfer	Financial support via CERs is vital for industrial sector competitiveness via cleaner production, climate control, innovation, diffusion, & energy savings. CDM could utilize the the the the dti incentives which incorporate environmental considerations eg. Critical Infrastructure Fund for technology development and transfer for cleaner production & energy efficient technologies.

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 in part by the environmental and market access gains that CDM would offer in the short term.

Key findings & recommendations relating to the policy area:

- CDM is not deliberately factored into the South African policy debate in the various areas considered for this study. It does not oppose any policy area while 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 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. Thus the strategic location of the DNA is crucial to raising the level of importance of the CDM and this route is proposed for the South African institution. The manner in which various Government Departments are brought into this process needs to be interrogated further in line with how CDM implementation is affected and how a CDM champion is nominated from specific departments.

- It would also be useful to ensure that CDM issues are understood at local and provincial levels since many issues around the environment and energy are a competence of these spheres of government. The manner in which CDM can feed into decision-making structures eg. Minmec or other agencies, allows for sensitisation and aware raising at a local/provincial level. Thus it is proposed that a particular effort is made at ensuring that CDM is understood and implemented at this level of government.

- A mechanism to ensure that the CDM is actively included in South African policy development & debate would be to introduce the issue of CDM to the various departmental clusters which would ensure that ultimately it is processed at the cabinet economic and social welfare clusters. It is proposed that the issue of CDM is thus championed at this level by selected government departments who take responsibility for this role. This would allow a wide range of policy areas, which have been examined in the study, to integrate the supporting effect of CDM and thus effectively utilize CDM more seamlessly by integrating it into their implementation strategies. This would be a practical route to ensure that CDM ultimately receives the attention of Cabinet and can also be considered in areas such as housing, public works, finance, forestry, science & technology, etc. This would broaden the scope for CDM to take root in a variety of sectors in the country, where it can support implementation efforts.

5.2.2. Promotion of CDM investment – structures, incentives, sectors/areas of focus

The study reveals that the rules for CDM do not prevent the use of incentives by national jurisdictions unless these incentives were secured from donors and the CDM grant would be deducted from this overseas donor assistance. Experience in general FDI attraction suggests that investors generally consider a range of incentives or positive factors which sway an investment decision. In the case of CDM, the value ascribed to CER's would be the initial signal for investor interest, hence the need for an additional suite of investment incentives becomes imperative. It is clear that promoting CDM as an investment option has not been actively embarked upon by the three developing countries benchmarked. Instead, the establishment of DNA structures has been the indirect manner in which investment is targeted, and a reliance on the market attraction power and GHG mitigation opportunities is advocated. This trend may not persist as DNA structures became more mature, and increased competition develops amongst developing economies for larger portions of global CDM investment. In fact, if one looks at the manner in which developed country institutions have driven CDM capacity building and project development, it is evident that CDM activity has been led mainly by developed country investors and government institutions. The sectors of focus for CDM projects globally have been in the main directed towards energy, renewable energy, industrial/engineering processes, fuel switching, mono culture plantations, hydro schemes, and agriculture.

As CDM processes mature and more understanding emerges of the possible benefits, competition for CDM investments will increase. South Africa's late entry into the CDM arena is thus not a major disadvantage since the pace at which its competitors have moved has not been rapid. However, major developing countries are currently setting up effective DNA's, and concluding major bilateral and multilateral agreements to increase capacity and skills to implement CDM investments. South Africa will need to act in the next three to six months to do the same and even move beyond the efforts of its competitors. The major areas where South Africa can currently outpace its competitors to attract CDM investment would be in the fields of active investment promotion and incentive offerings. There is currently no explicit CDM promotion drive by the three major recipients of CDM project development. The country has a widespread global 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. South Africa currently has the third highest number of CER's generated for projects with a PDD & registered baseline methodology. This position is clearly much higher than South Africa's current ability to attract a global share of general FDI.

Key finding & recommendations on CDM promotion and incentive support:

- The DNA should utilize the current international network of investment promotion resources of **the dti**/Trade and Investment South Africa (TISA). These investment promotion offices exist in the industrial and financial cities of all the top 10 FDI source countries and are able to manage investment promotion. There is institutional readiness to accept CDM promotion as part of their mandate and this together with appropriate CDM capacity building and training would need to be done in conjunction with the DNA. The areas of training include providing a general sense of the CDM concept, its rules and procedures, indicating the sectors of importance and the specific projects in these sectors, the manner in which incentives could be utilized to attract more CDM projects, the needs of CDM investors and the manner in which CER are traded in the global market. Building a promotion campaign together with the relevant industry players would also assist in positioning South Africa as a major destination for CDM investment. This would offer the most cost effective and efficient manner of CDM investment promotion in key markets identified as the major outward investors in CDM globally. **the dti** has agreed to undertake training and this could be extended

in conjunction with the DNA for investment and incentive scheme officers required to assist with CDM. The private sector would also be able to access these training resources to encourage a wider understanding of CDM and its processes.

- **the dti**/ TISA has indicated its willingness to promote CDM projects, and the next step would be to formalize this role with the DNA and its steering committee of which the the the dti is member. The steering committee is currently tasked with assessing projects with the assistance of the secretariat provided by DME, and assistance in specific sectors or targeting investment destinations will have to taken on a project level basis. The mechanics of this cooperation would need to be addressed by the DNA and **the dti**. Notwithstanding **the dti** representation in the steering committee, clear targets for CDM investment, a strategy, and a business plan to attract this investment would need to be decided between the DNA and **the dti**/TISA. It is clear that the many of the major international areas of interest for CDM investment needs to be the focus for South African investment attraction. Thus South Africa's CDM focus would be in areas that support policy such as:
    - Energy efficiency projects relating to lighting and industrial processes, the use of off-grid energy generation projects especially in rural areas, coal extraction technology, and diversity in energy sources. Fuel switching projects moving from higher carbon emitting to lower carbon emitting fuels such as natural gas, bio-fuel, biomass, mini-hydro schemes, wind and solar energy. The taxi re-capitalization project offers an opportunity for fuel switching to enable lower emissions levels and thus act as a financial catalyst for the project.
    - Mono culture plantations where water permits allow community empowerment, agriculture related projects related to manure handling, and enteric fermentation projects related to feedlot breeding.
    - Gas capture, removal, and use projects relating to landfills benefiting from the country's advanced waste management system. These have been the most advanced projects to date in the country and are generally regarded as easier targets for GHG mitigation projects.
    - Industrial projects relating to waste stream treatment in the pulp and paper sector, recovery of minerals from coal ash, using waste as energy sources, catalytic converter technology which reduces GHG emissions, energy efficient engines, production line efficiencies in energy, as well as the use of natural

based composites away from energy intensive materials. In other areas, where capital equipment is manufactured the design of energy efficient products and processes, and materials would also have a potential for CDM projects to take root.

- The current investment incentive support exists mainly in **the dti's** Enterprise Organization (TEO), which has a mandate to support investment activity in the South African economy. Its 2004 budget for such investment and competitive support is R800m with a further R10bn over 10 years available as tax credits via the Strategic Investment Programme. the dti through TEO can assist CDM projects in accessing a variety of incentives that would support the various costs involved in project preparation, investment support schemes, enterprise support for DOE creation, and certain export marketing and exhibition support. Technology support incentives exist in **the dti** and in the Department of Science and Technology and these would be relevant for certain CDM projects. The DNA needs to ensure that its approval processes are aligned to allow project participants access to these incentives, hence a formal agreement on how these incentives could be accessed needs to be initiated. Possible options in this regard would be recognition of the parallel time frames within each of the project approval processes of the DNA and **the dti** and hence the ability of project participants to test the processes simultaneously and mutual recognition in this regard. A list of potential schemes and its application to CDM projects has been undertaken for the study and it was shown that they can be utilized as follows:
    - **Competitiveness Fund & Sector Partnership Fund** – using the matching grant by individual or clusters of firms in establishing baseline methodologies, new methodologies, monitoring costs, DoE validation/verification & brochure production, project registration costs, & fostering local DoE expertise.
    - **Small and medium enterprise development programme (SMEDP)** – for smaller CDM projects seeking establishment grants to reduce establishment costs up to R100m of qualifying assets. The CDM project could apply for a cash grant on a scale determined by the value of qualifying assets committed.
    - **Strategic Investment Project** – for CDM projects above R50m, utilizing tax rebates up to investment levels of R600m of qualifying assets. The CDM project would have to satisfy the specific points criteria of the scheme in order

to apply for tax allowances against taxable income for manufacturing and research and development activities. The Critical Infrastructure Fund is s scheme that would be accessed jointly with the SIP or SMEDP in order to fund power, gas, bulk utility services needed for a project between 10-30% of the value of the project in the some of a grant payment. Thus a CDM project could access the scheme on the basis that it will enjoy SMEDP or SIP status as well as the ancillary costs of qualifying infrastructure establishment in conjunction with local municipalities, private sector or a partnership of both these players. The Critical Infrastructure Fund intends supporting environmental investment which could assist in making industrial projects more environmentally compliant. This allows CDM projects an opportunity to access funding for sections of a project which could be categorised as critical environmental investment such as waste management systems.

- **Foreign Relocation Grants** – this scheme would assist qualifying equipment being shipped with costs up to R3m transferred for CDM project implementation locally. This would be in addition to the SIP or SMEDP incentives received for the project.
- Utilizing the **Development Financial Institutions** such as DBSA and IDC in order to access preferential financing for large and small scale projects. The use of DBSA who are local agents for World Bank Prototype Carbon Fund to obtain financing for CDM projects as is the case for the current landfill gas projects in South Africa.
- **Technology support incentives** for CDM projects involving THRIP, SPII, & PII in early stage technology development. Currently the plan for renewable energy projects in the CDM field and beyond is to foster technology development in areas where costs of power generation have been prohibitive due to technology costs. The technology support incentives can be utilized in the preparation of CDM projects and in furthering the technology development of an existing CDM project. The innovation fund from the Department of Science and Technology would be able to support commercially driven CDM technology development with a strong chance of commercialisation.
- Export and investment support schemes such as the **Export Marketing Investment Assistance**, can be used by CDM project proponents in various ways. The most obvious manner would be to enable prospect investors to make

inward investment missions to potential destinations with funding from the EMIA scheme. The assistance involved in post project implementation would include market research cost offsetting for export markets. This would include market assessment trips, exhibition cost assistance, and export sales trips for products of CDM projects.

- CDM projects in South Africa would also be recipients of incentives from other sectors of government such as the proposed subsidies for Renewable Energy projects suggested by DME in the White Paper on Renewable Energy.

- A mechanism that allows CDM project participants to access incentives from **the dti**/DST needs to be implemented so that at DNA pre-approval, the process of accessing funding for the intended project is initiated with TEO. This would have a major impact on shortening implementation schedules once Executive Board approval is obtained. Some consideration that a project has pre-approval status needs to be given by the various TEO adjudicating committees. While different incentives have their own unique time frames for approval, it is vital that the South African CDM projects are able to lessen the overall time taken by the DNA and incentive secretariats. It is proposed that the DNA and **the dti**/TEO have a working agreement to this effect.

5.2.3. The functions, structure and operations for the DNA emerging from international experience

The study sought to gain a perspective of how major developing countries such as Brazil, India and China have positioned their Designated National Authorities in order to facilitate the CDM process. These countries have had a varied experience and reaction times in gearing themselves to attract CDM investment. Best practise garnered from these nations indicate that these countries 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. It is noteworthy that those nations that have prioritised the attraction of CDM such as Brazil and India, that the issue of CDM is elevated to the highest office such as the Presidency or the Prime Minister's office. Involvement in the DNA is visible by making these Offices part of the DNA decision making structure. Political leadership is thus utilized to increase the status of CDM projects in the various countries.

It is a clear that the utilization of international assistance is a common feature of how these three countries increased capacity to set up effective DNA structures and increase project assistance for CDM. This assistance is channelled via government-to-government or DNA authorised agreements which allow easy access for capacity building and project implementation assistance. These agreements are usually a precondition for developed countries to channel capacity building and project scoping assistance. 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. The experience of developed countries studied shows that an effective DNA allows bilateral and multilateral institutions to more effectively implement CDM projects.

Key findings & recommendations in the area of DNA set-up:

- The current DNA Steering Committee involves DME, DEAT, **the dti**, NDA, DFA, and National Treasury but in line with international experience would need to draw in inputs from the economic, environmental, mining, energy, housing, public works, forestry, agriculture & transport sections of government as well as the policy sections of the Presidency. This allows a clear means of integrating CDM thinking into policy formulation as well as allowing the DNA to make project approval with an informed input from all affected sectors of government. This would also raise the profile of CDM in the government and consequently amongst business and other stakeholders in the economy. An effective way to achieve this broad representation in the DNA would be to propose this at the Departmental cluster on the economy and the social cluster and ensure that the relevant Departments are able to champion CDM within their own policy and delivery mechanisms. One manner in which to achieve this would be to request departments to nominate a CDM champion who has a strategic policy influencing position in the relevant department.

- 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. The Brazilian DNA equivalent has instituted advisory forums with business and other stakeholders to guide it on certain policy aspects and has instituted public comment processes to assist in forming DNA guidelines. The experience of the Brazilian DNA is instructive, in that it assesses sustainability criteria in a broad sense relating to what constitutes eligible projects, it ranks projects in terms of priority indicators, and looks for CDM project multiplier criteria. The core work of the DNA is to ensure that compliance with Sustainable Development Criteria occurs. The DNA can also source technical insights into specific projects in order for a project to be properly evaluated by the steering committee. An advisory forum could be constituted of experts to guide the DNA in its policy formulation and operation.

- Resources for the operation of the DNA should be allocated by the hosting section of government in order that the institution can perform its function effectively and efficiently. Best practice currently experienced in terms of decision making turn around ranges between 10-20 days as intended by the Chinese. Current processes developed by DEAT and indicative of the Brazilian experience suggest a more realistic period of 60 days, given the 30 day public consultation period. Brazil has subsequently approved two CDM projects and this was done in an average of 60 days per project approved. A fast track and efficient secretariat to ensure smooth approval by the DNA would be an imperative, and this needs to be properly skilled and resourced. In the case of the Brazilian body a high level executive secretary with supporting technical and administrative staff were taken from the Ministry of Science and Technology to run the DNA. The DNA may also be required to distribute donor and other funding for capacity building or direct project implementation. The Chinese body hopes to charge a flat 2 % fee of CERs issued as cost for CDM projects. Brazil and India have not as yet made any pronouncement relating to cost recovery by the DNA.

- While the incentive recommendations are dealt with above, a key feature of the DNA would be that it is able to seamlessly offer incentive access to project participants. This integration of project approval and incentive offerings allows the project participants to simultaneously access both functions. This will cut back on lead times before implementation and resolve certain cost issues and application procedures. The DNA would thus need to have a working arrangement with investment and export

incentive bodies to allow project participants this service. It would thus assist the DNA to ensure that senior the the the dti officials are co-opted in DNA decision making structures.

- An effective relationship with TISA promotion sections will result in that organization becoming the first point of engagement for mainly foreign investors. 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 first point of contact for CDM projects for both local and international players which could then be channelled to **the dti**/TISA. The main role the DNA would be one of interpreting rules set out by the Executive Board and in some instances clarifying host country approaches to specific controversial rules such as additionality, macro-economic impact and sustainability to CDM investors.

- Another role that can be ascribed to the DNA would be that of disseminating information on the UN rules, institutions, and procedures to aspiring project promoters. It is clear that this is an evolving process and it requires the DNA to monitor these UN processes and offer clarity to South African based projects on the most efficient routes around various CDM processes. Thus ongoing monitoring of COP meetings, Executive Board decisions and processes in the accreditation, and scientific & technical panels of the Board are vital additional functions for the DNA to assume.

5.2.4. Promotion of domestically located Designated Operating Entities

The imperative for South Africa in promoting domestically located DOE's lies in the cost savings for CDM projects if verification and monitoring can be done by local DOE firms. This would add to the competitive advantage South Africa could offer project participants. South African firms seeking to be accredited would need to demonstrate the requisite technical and managerial skills required to be designated. This should not prove to be overly onerous for SA firms since many local firm's laboratories would have international accreditation in terms of good laboratory practice. The incentive schemes illustrated in the study should cover some elements of the costs involved in setting these firms up to apply for DOE status. This process requires firms to also provide cover for potential liabilities should

its verification and monitoring be found to be inadequate. The current processes however are structured in manner which makes it very costly for local applicant entities to achieve UNFCCC accreditation due to the centralised nature of accreditation by the Executive Board via its foreign based accreditation panels and accreditation teams. The costs involved in flying out foreign based accreditation teams makes it prohibitive for SA firms applying for DOE status. SANAS is currently prohibited from accrediting local firms to undertake accreditation procedures on behalf of the UNFCCC, and this is a significant cost raising feature in the process. Representations need to be made formally to the COP and the Executive Board to alleviate this obstacle for domestically located DOE's in the South African environment.

Key findings and recommendations relating to promoting local DOE's:

- Local incentive schemes need to be attuned to the needs of locally based firms seeking accreditation. The process for registration is a costly one and these costs need to be alleviated by incentive schemes in order that CDM projects ultimately have lower cost structures. The local schemes proposed in this regard are the Sector Partnership Fund and the Competitiveness Fund. The use of competitively priced professional indemnity insurance to cover DOE's against damages by the Executive Board need to be also catered for in the local market and some cost recovery via incentive arrangements need to be addressed. Training programmes subsidized by the Services SETA to assist aspirant DOE's achieve the standards set by the Executive Board also need to be instituted as part of the process to gear local firms for full accreditation. Current cost advantages for local professional services versus that in developed countries would place South African firms in a strong position to tender for local and regional DOE work.

- The DNA in its function as a disseminator of information relating to Executive Board rules and procedure needs to assist potential DOE's in the application process which can be complex and costly. The secretariat of the DNA would need to act as a reference point for aspirant DOE's requiring clarity on registration, and standards needed for DOE status. The study details the entire process involved in the application and registration for aspirant DOE's.

- Another cost reducing measure would be to involve the International Laboratory Accreditation Cooperation (ILAC) to take the issue up with the UNFCCC secretariat with a view to allowing local accreditation of aspirant DOE's. SANAS is responsible in South Africa for applying accreditation standards nationally and is also recognized internationally by the global accreditation body (ILAC) to be competent to accredit local firms that can provide accreditation services to aspirant DOE's. This needs to be pursued by SANAS in its ILAC forum so that the accreditation function is locally implemented at considerable cost savings to locally based DOE's and ultimately CDM project participants.

- The South African Government needs to pursue this issue via the chair of the accreditation panel, who is South Africa's nominee to the Executive Board, in order that the UN devolves accreditation responsibilities to local agencies. The current status quo does not assist developing country based DOE's who would be prohibited from participating as DOE's. This would impact negatively on the implementation cost for CDM participants.

- A further avenue open to the South African representatives at the UNFCCC that could yield the most pressure would be to highlight the high costs and obstacles involved for developing country based DOE accreditation at the COP/MOP. This forum would highlight the plight of developing country based firms seeking to be accredited as DOE's. In this regard South Africa would have to build alliances with like minded developing countries in this forum, to press for a reassessment of the central accreditation of DOE's.

5.2.5. Ownership issues relating to Certified Emission Reduction credits

The international Emissions Trading Association contends that while the Kyoto Protocol is not yet in force, the exact nature of domestic legal regimes governing reductions in emissions of Greenhouse Gases (GHGs) is (in most countries) still not known, there is no regulated scheme for transactions involving project based emission reductions and the market for such emission reductions (ERs) is not yet liquid. As such, the proper drafting of contracts for the transfer of ERs from one party to another party is vitally important. Further it is noted that

the key principles are that the atmosphere is a scarce resource, utilization of the resource is skewed, a new area of law that is unique and cross-jurisdictional in nature combining principles of public international law, a limitation of property regime definition exists, and ownership of atmosphere is subject to the Property Rights Issues. It is maintained that if a project is "legal" in domestic jurisdiction and ERs are "certified" and "verified" by authorized agents, then ERs are legal commodities. The purchase/sale of CERs is a contract among buyers/sellers and rules pertaining to export of a legal commodity in a country are applicable.

Key findings and recommendations on CER ownership and taxation issues

- Ownership in the three developing countries studied indicates that no questions regarding title to the CER's generated by CDM projects are being posed. In other words, bar issues relating to costs extracted at the DNA and Executive Board level , title is retained by the project proponents responsible for generating the GHG mitigation efforts.
- The developed countries studied have not made clear policy positions regarding the taxation of CER's. China has indicated that it seeks to charge at least a 2% charge of the value of CER's generated for projects approved by its DNA. The Executive Board will charge a sliding fee for the issuance of CER's depending on the size of the project and does not prohibit local DNA's from levying such charges.
- Brazil and India have adopted a more open attitude to CDM project attraction and see this as a major part of the FDI strategy. South Africa would need to be guided by this approach since China does not need to offer any incentive to attract FDI. CDM projects will be attracted by lowest cost destinations, and the incentives on offer.
- The issue of taxation would be influenced by how the CER trade is accounted for by the local project participant. Current tax rebate incentives such as the SIP would allow for CER's accounted for as income into the project to be offset by the project rebates received. The current Steering Committee of the DNA includes the National Treasury, which needs to be engaged on the tax policy implications of revenue arising from the sale of CER's.

5.2.6. Awareness raising and training for CDM

The study involved an engagement with various stakeholders in business, government and labour. Apart from certain minor sections of these constituencies, very little or no knowledge of CDM existed with people consulted. The apparent benefits to South Africa were

appreciated once the CDM concept was explained and generally all organizations and individuals committed themselves to facilitating CDM projects. The need for effective training was highlighted by all institutions if CDM was to garner proper support from a variety of individuals and institutions. The study concluded that awareness raising had to occur at two levels, broadly with communities in general and specific awareness raising with potential project proponents that may not have any knowledge of the CDM process. Similarly training on CDM processes, institutions, rules and regulations was needed for all players in the CDM arena.

Key findings and recommendations on awareness raising and training:

- In the area of general awareness building, various mechanisms are possible for CDM. The DNA needs to take responsibility in disseminating via mainstream media and other channels the concept of CDM, its relationship with the environment, and its impact upon society in terms of better quality of air, job creation, and better service delivery. A number of NGO's have CDM as the main focus of their activities locally, and it would be useful to harness their reach into various constituencies. Thus a general campaign to bring the issue of CDM and climate change to the forefront of attention via the mainstream media, educational institutions, various NGO's and utilizing the reach of provincial and local government needs to be undertaken. South Africa's hosting of the World Summit on Sustainable Development provides a platform from which the issue of CDM and climate change can be popularized.

- Specifically targeted awareness raising is also necessary for a wide range of possible project proponents. The various NEDLAC constituencies, NGO's and other community organizations need to be educated on CDM and climate change. This involves raising CDM knowledge levels in organizations of sectors targeted for CDM investment in this study. These constituencies who would have a direct interest in facilitating CDM projects would also have to be targeted in this process. The training requirements would be to provide simplified sense of the UNFCCC, the Kyoto Protocol, how CDM evolved as a one of the flexible mechanisms for addressing climate change, the procedures and rules developed as well as the key institutions such as the Executive Board and its relevant panels, their rules and procedures, indicating the project areas targeted for South Africa, the incentives available to support CDM projects, the global context in which CDM investment has occurred and the needs of

needs of CDM investors, as well as the global trading system for Emission Credits and the implication for South Africa. The DNA would need to set out information briefs customized for various sectors, as well as evolving rules on CDM, as well as guidelines on becoming accredited for DOE work.

- Training has been a central need identified in the study for various parties involved with CDM projects. This includes training programmes that could be funded via specific incentives such as **the dti's** project specific Skills Support Programme which would consider the training grants for new skills up to a maximum of 30% of a firms wage bill. Key training areas that the DNA needs to develop would revolve around training aspirant DOE's on meeting current standards, maneuvering through the UNFCCC onerous processes and changing rules, meeting technical requirements for accreditation. The DNA should in the main interpret CDM rules and identify training needs, and ensure that the relevant SETA's incorporate this into their skills plans and are able to contract in service providers for this purpose. Project participants require skills to complete project information notes, project design document, navigate the rules and bureaucracy of the Executive Board and its Panels, and structure projects in a manner that reduces administration costs.

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