Climate change and Africa: some harsh realities[1]

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CDM project scenario

The ***share of CDM projects*** coming to Africa will be small due to a variety of reasons. On a per unit emission reduction basis, implementation costs are likely to rather high and not competitive compared to other regions. The allowance to use sinks domestically, a soft compliance regime, the non-participation of USA and the increased emphasis among the EU and other Annex I Parties to focus on domestic action, have significantly reduced the absolute amount of potential CDM projects. (Given the fact that the bulk of future emissions are projected to emanate from developing countries, (IPCC, 1996) the inward-looking policy maybe rather short sighted). Experience from Foreign Direct Investment (FDI) offers useful lessons. An important fact to note is that Africa managed to net the pathetically low level of FDI (1.2% of the world total inflows in 2000 (UNCTAD, 2000)) despite investing heavily in setting up a conducive competitive environment. Aggressive promotional activities and huge incentives are provided to FDI investors at costs that are increasingly believed to outweigh the benefits (UNCTAD, 1999; Agosin and Mayer, 2000). As in the FDI case, the bulk of CDM is expected to originate from the private sector whose key motivation is profit generation. These investors will come to Africa if it is competitively better than the other regions. If Africa has failed to attract FDI, can it expect to net significant amount of CDM? Africa has such limited prospects that it might be worthwhile to re-orienting the focus more towards development and not just emissions reductions to at least ensure netting some benefits.

The discussion on ensuring ***equitable distribution of projects*** has found solace among many, especially NGOs. While the course is socially justifiable its implementation is nearly impossible if the CDM is predominantly a market based mechanism. How can the private sector be forced to invest where it does not believe it is financially viable or better than alternative locations particularly in today's global market scenario? Isn't today's disparity in development status across regions sufficient evidence of lack of commitment towards equity? One might argue that the new monster, greenhouse gases (GHGs), might force the world to cooperate better. And perhaps in the shared interest in the global commons, there is a case for enforcing equitable distribution of the opportunities and responsibilities. But the reduction of a GHG unit at one site is supposedly as good as if the reduction occurred at a different site. In addition, the world is rapidly shifting towards a throttlelingly globalised market. Hence there is little incentive to necessarily cooperate with a particular Party or region, for example with Africa instead of Asia.

There has been a lot of emphasis on ***funding additionality***, with developing country Parties arguing that funding should be additional to ODA. How important is this discussion for Africa, a continent that has been suffering a pronounced decline in flow of ODA since 1990? Not only is proof of additionality difficult but also as long as the indicator is gross rather than region-specific, Africa will not necessarily benefit from pursuing this stance. Though a significant share of ODA has been directed at infrastructural development e.g. roads, the larger part of the continent lacks the infrastructure that is necessary for development and attracting private sector investment. These projects are however normally designed without taking into account the environmental implications. To develop and even to attract investments under the climate regime, Africa needs to build and improve its infrastructure. Hence, should the continent not consider ODA used for infrastructural aspects of a CDM project as being additional, especially if this makes the project more attractive to the Party contributing the ODA? Should ODA projects that take into account emission reductions or avoidance not be considered additional? Needless to note, ODA investments are laden with conditionalities which ultimately makes them not cost-effective. To make ODA projects environmentally friendly will require relaxing conditionalities,

[1]The opinions expressed in this article are those of the author and not the views of UNEP Collaborating Centre on Energy and Environment.

especially those related to sourcing technology. The discussion of additionality to ODA has so far neglected addressing an important element; what is the base/reference year in question? In a situation where the respective amounts are dwindling each year, by the time there is some agreement on this issue, the quantity might well be ‘zero’. In addition, in anticipation of the outcome, don’t the affected Annex I Parties have an incentive to significantly reduce their ODA contributions? The equations calculating additionality are likely to be complex. Annex I Parties will seek to maximize by integrating the most indirect expenditure such as industrial promotion in the investor countries for products generated at host countries, as being additional. After all, all Parties have an interest in pursuing the least cost options.

Under the prompt start for CDM, small-scale projects will get preferential treatment. Overall the ***CDM project crediting period*** is limited to five years except for small scale projects where the period can be extended up to ten years (UNFCCC, 2001a). Obviously ‘extending’ the crediting period increases transaction costs of these already relatively expensive projects. Noteworthy, crediting period has significant implications on the viability of the project since the total emissions vary accordingly. The AIJ experience demonstrates the unattractiveness of short crediting periods. Less than 10 of the total 152 AIJ projects have a lifetime of 5 years or shorter. All the 17 AIJ projects registered as forestry (afforestation, preservation and reforestation) have lifetimes of 15 years and above, with the majority (11) having a crediting period of at least 30 years (UNFCCC, 2001b). Why then would investors undertake CDM projects, with penalties on crediting period, instead of using other mechanisms?

Sink projects are now in CDM, albeit limited to reforestation and afforestation. However it is unlikely that these will comprise the list of prompt start projects since sinks are to be guided by the LULUCF agreements. Including sinks may have diversified the range of projects and hence increased project opportunities. Even so, is Africa likely to benefit from sink projects? Except for the one component of the Burkina Faso AIJ project, which accounts for 17% of the total projected emission reductions (UNFCCC, 2000), the continent does not have experience with sinks projects through AIJ. As discussed in Wamukonya (2001), an extensive and mature institutional framework is needed to compete with other regions in attracting sink projects. One of the rather obvious limitations of AIJ is its usefulness in providing lessons. However, the AIJ project reports available from the UNFCCC secretariat lack some key information such as project cost, commencement dates, emissions reduced etc. making it rather difficult to establish the impacts of the projects or their cost-effectiveness.

So how much should Africa invest in attracting CDM projects? Additionally-minimal. Africa should focus on strengthening existing FDI frameworks and not establishing new CDM frameworks. If indeed CDM is a market oriented approach, Africa should use the actors who are already experienced in these issues; the ministry of finance and planning for example should play a central role in operationalisation of CDM. On the other had, the divisions mandated with the climate change agenda should provide relevant technical advice to these ministries.

Technology Transfer

Discussions on technology transfer seem to ignore the fact that this is not a nouvelle idea. Technology has been transferred for centuries though private sector, bilateral agreements, export credit agencies, and donors. By making technology transfer an agenda that is dissociated from the prevailing frameworks, the default is to seek for new implementing institutions. This ultimately creates delays and entails high costs at the risk of unsustainable development. These discussions need to shift towards more-grounded, more realistic low-cost approaches. This entails building on what is there and acknowledging the present actors, from the smallest informal entrepreneurs to the multinationals.

A technology transfer expert group was proposed in Bonn in July 2001. Africa should urgently propose a representative to this group and more importantly advice the representative on how best to address the technology transfer issues to best meet the continent’s development goals. It might be advisable to have a practitioner rather than an academic represent Africa. Notably, the fundamental issue is the effectiveness of such a group. Thus defining what the group will do, how this will be done and how the subsequent recommendations will be implemented, is the critical issue.

Climate Change Funding: what can Africa expect?

Funding will emanate from various funds; the special climate change fund, adaptation fund, GEF climate change focal area, bilateral and multilateral funding and the LDC fund. While in the Presidents text from the Hague, the total contribution was stated as maximum US$1 billion per annum, the Bonn Agreement has no reference to a specific amount. Parties are to contribute on a voluntary basis. The EC and its member states together with Canada, New Zealand, Norway and Switzerland have pledged to contribute US$410 million annually by 2005. Canada on the other hand has pledged US$10 towards the LDC fund. Guidelines on how these funds will be used and accessed are still lacking. However, GEF will be the financing agency. Experience with GEF among the African countries has not been very positive. While a call for GEF reform to better accommodate Africa and other developing countries has been made, it is imperative that the affected Parties proactively articulate their grievances and make the necessary recommendations as guidance to GEF.

USA's position against the Kyoto Protocol has implications for funding available to Africa, a continent with the most limited choice of mechanisms. Africa has viewed CDM as its saviour, its entry point to the climate change coffers. To accommodate USA, funding has been spilt into Funding for the Convention and Funding for the Kyoto Protocol. Thus, to access USA's contribution Africa will have to convincingly glaze its requests with the Convention and not the Kyoto Protocol.

The AIJ experience: a source for lessons?

Africa has had limited experience with AIJ; hosting only 10 of the 152 AIJ projects. These projects are in 8 countries. Five of these projects were registered with the UNFCCC secretariat in 2000-2001 period. The beneficiaries are Burkina Faso, Mali, Equatorial Guinea, Mauritania, Morocco, Zimbabwe (all of which have one project each) and South Africa and Mauritius (each with two projects). (UNFCCC, 2001). The costs of emission reductions vary widely across the projects (see Table 1). Some of these projects are yet to start. In Mali, for example, the project developers have not secured sufficient funding. Overall in AIJ the share of investments from private sector has remained low compared to public sector which originates from both Annex 1 and the host Parties.

From the UNFCCC AIJ project reports, it is rather difficult to establish the performance of these projects in terms of their ability to reduce emissions. This leads one to question the environmental integrity of the projects. For instance, evaluation of the Burkina Faso project has raised concern on the validity of the baseline, the absence of relevant data and hence the basis for asserting emissions reduction. Interestingly though, third party verification is not mandatory for the AIJ projects (UNFCCC; 1999), which leaves room for unaccountable reporting, at least until the issue is flagged by a concerned party. The proposed advisory committee for Article 6 needs to address the inconsistencies in AIJ, particularly the reliability and availability of project information, to facilitate learning process.

Some hope for Africa?

The COP has promised capacity building for developing country Parties. While climate change as an isolated objective might not offer much in terms of development projects, Africans should take advantage of using the capacity building resources to strengthen their capacity for development within the globalisation context. The ad-hoc isolated capacity building initiatives that are being undertaken are unlikely to meet the necessary long-term development objectives. Africa needs to structure a cohesive and comprehensive capacity enhancement program which builds on existing structures and regional cooperation opportunities. Such a programme should comprise of some key elements; knowledge, project implementation and policy. The use of local and regional expertise for capacity building should be encouraged. To ensure efficiency, Africa needs to maximize on using the expertise in the region.

According to Article 12.4 of the Convention, developing country Parties can propose emissions reduction projects for financing. The secretariat is mandated with compiling and documenting the list. From the list available in September 2001, only four African countries are featured among 21 countries (UNFCCC, 2000b). It is not enough to have these projects documented, they need to be implemented. Africa has to push for this leap from documentation to implementation. An innovative marketing mechanism needs to be set up to undertake this task. Africa can take a proactive role in establishing such a continental-oriented mechanism.

The recent developments in the USA's position has given rise to a 'blame-approach', where the rest of Annex I Parties focus on pointing fingers at USA. Africa largely supported EU in the Bonn negotiations. The question then arises: what are the EU and the rest of the 'Africa-friendly' Annex I Parties doing for Africa? As might be expected Annex I Parties are primarily interested in promoting particular technologies. However, Africa does not need technology per se rather Africa needs technologies that will advance sustainable development. EU and the other Annex I Parties should provide support for ***Development.*** Africa has to repeatedly articulate this need. EU and the other Annex I Parties are looking inward and might not invest heavily in JI and CDM. With the USA not participating in the Kyoto Protocol, the Certified Emission Reduction unit market has been significantly reduced, perhaps by as much as 60-70%. The ***Development First*** approach where development takes priority over emissions reductions (acknowledging the sustainable development objective in CDM) should be the path pursued by Africa. This is also in accordance to the Millennium Partnership for the African Recovery Program(MAP) promoted by African leaders. Africa should hence seek support of the EU and other Annex I countries towards this goal. Africa could for example request these parties to invest in a project that would demonstrate how sustainable development and climate change objectives could be jointly fulfilled. Implications of the different elements and approached proposed in the CDM need to be analysed and undertook based on their implications on sustainable development. Some of the questions that Africa needs to address include; what would be the appropriate baseline approach for Africa?: What should be the crediting period?

The Executive Board will be established at COP7. Africa needs to submit its proposed representatives before COP7.

Africa needs to invest in forging beneficial relationships. Both the private sector and the public sector will play key roles in climate change. Thus Africa should seek out its partners and start cementing the relationships in a manner that fosters the development agenda. From the AIJ experience it would appear that countries that have had some dealings with particular developing countries, tend to be the investors. Thus African countries could proactively entice their ODA and FDI partners towards a sustainable development oriented CDM, ODA and FDI investments.

Table 1: AIJ projects in Africa

Country	Project title and type	Investor country	Yr started	Lifetime (years)	Total emissions (metric tons)	US$/ton CO_2
Burkina Faso	▪ Burkina Faso sustainable energy management ▪ Energy efficiency	Norway	1999	6	1,450,000	1.66??
Mali	▪ Energy Centres for Mali ▪ Renewable energy	USA	Not started, no funds	20	413	1658
South Africa	▪ The Guguletu Eco-homes project ▪ Energy efficiency	USA	Not started	50	13000	196
South Africa	▪ AIJ project "Energy efficiency improvement at ISCOR" ▪ Energy efficiency	Netherlands	2000	?	?	
Morocco	▪ Mohammedia RGCC[2] power plant ▪ Energy efficiency	Italy	2001	23	?	
Zimbabwe	▪ Mini hydro power plant at the Manyuchi dam in Zimbabwe ▪ Renewable energy	France Canada Germany	2001	25	126578	12.8
Mauritius	▪ Performance monitoring of solar systems ▪ Renewable energy	Australia	2001	20	2,080	437
Mauritius	▪ Fuel efficiency improvement at a power station in Mauritius ▪ Energy efficiency	Australia	2001	1	1000	78
Equatorial Guinea	▪ Atlantic Methanol production company environmentally responsible gas processing on Bioko islands ▪ Fugitive gas capture	USA	2001	25	71,400,600	?
Mauritania	▪ Alizes electrification rurale ▪ Energy efficiency	France	1999	20	16315	

[2] RGCC=residue gasification and combined cycle

Key Notes:

- Cost-effectiveness: the case of Burkina Faso is notable for the extremely low cost of emissions reductions. The amount quoted is presented in the UNFCCC report but should be subject to verification.
- Indicators on project performance are not provided in the UNFCCC reports. Hence it is difficult to establish the validity of the project or its contribution to sustainable development.
- One of the aims of AIJ was improve capacitate to undertake climate change projects. However, it is impossible to discern what capacity has been build or enhanced through these projects.

Adapted from UNFCCC, 2001: http://www.unfccc.int/program/aij/aijproj.html

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