



# Seventh African Development Forum

*Acting on Climate Change for Sustainable  
Development in Africa*

## Climate Change, Trade and Industrial Development

*Issues Paper #5*

ADF VII • 10 - 15 October 2010 • United Nations Conference Centre • Addis Ababa, Ethiopia



African Union



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Economic Commission  
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## I. Overview

1. Africa's trade constitutes about three per cent of global trade. Exports are largely agricultural and unprocessed commodities from particularly resource-rich countries. Agriculture, mining and oil constitute more than 80 per cent of exports, traded mainly with Europe and North America. Trade between African countries currently constitutes only about 10 per cent of the total – with trade in agricultural and manufactured goods on the increase. For the future, Africa seeks greater conversion of natural resources to higher-value products, to expanding local industries, with greater export opportunities and import substitution.

2. Africa currently appears poised for economic take-off. Prospects for the African internal market are most promising. One critical challenge that Africa faces together with the rest of the world is how to make trade and climate-change policies compatible with each other. Given the reality of climate change, it is important: (a) to identify and take advantage of new opportunities arising, (b) to minimize potential negative impacts on trade and industry from climate change, and (c) to strike the appropriate balance between new rules being developed to combat climate change under the UNFCCC and the existing multilateral trade rules under the WTO. Climate investments and opportunities in the 'Green Economy' appear promising for strengthening economic and social development along environmentally-sustainable pathways.

3. **Overall impact:** Climate change impacts are expected to reduce projected global output by one to two per cent by 2050, with main declines seen in developing regions. The impacts of climate change itself will have relatively modest impacts on aggregate trade, since this is increasingly manufacturing and services-oriented. Business-as-usual projections suggest that global trade will be reduced by some three to four per cent by 2050, mainly as a result of reduced output. Of particular concern to Africa is the anticipated reduction in agricultural outputs due to climate changes, which would reduce export crops and increase dependency on food imports. The currently expanding tourism industry in Africa (five per cent of global) is expected to decline with higher fuel prices.

4. **Trade routes:** One of the clearest impacts of climate change will be on trade infrastructure and routes. Port facilities, as well as buildings, roads, railways, airports and bridges are at risk of damage from rising sea levels and the increased occurrence of instances of extreme weather, floods and storms. In addition, fuel prices are likely to change significantly in the future, making some existing trade uneconomic but also opening up new possibilities.

5. **New industrial trend:** There is growing evidence of a new industrial trend at a global scale. Climate change awareness and the various regulatory, policy and business responses are already starting to drive worldwide economic and industrial restructuring to reduce emissions. This restructuring has begun to redefine the very basis of competitive advantage and financial performance for both companies and their investors. If a company or industry is deemed part of the emission problem, its future is limited.

6. As the president of Volvo remarked "We feel we are part of the problem, and we feel we need to be part of the solution." In fact, some Transnational Corporations (TNCs), with their formidable knowledge, cutting-edge technology and global reach, are among the primary actors in the shift towards a low-carbon economy. However, this new industrial trend will not occur without challenges. For example, border carbon adjustments (BCAs) measures being imposed to address 'carbon leakage' mean that competitiveness will not be the ultimate determinant of the new global industrial structure. Ac-

curate pricing of carbon will be crucial to ensure that the BCAs do not end up being trade-protectionist measures rather than instruments for dealing with climate change.

7. **Opportunity:** For Africa, as for many developing countries, low-carbon investment supported by TNCs and international investment institutions can facilitate the expansion and upgrading of trade and productive capacity and export competitiveness, while helping the transition to a low-carbon economy. Green investment within a global partnership still carries economic and social risks for Africa but offers unique opportunities for sustainable development and attainment of the MDGs.

## II. Many Issues at Stake

8. Effective action to cope with climate change for sustained economic growth and poverty reduction in Africa requires in-depth understanding of the full range of the challenges to and opportunities for trade and industrial development. These are many, and are often intertwined with other complex issues. They include:

- a) **Increased variability in food import/export.** Greater seasonal climate variability and long-term decline in crop productivity in a hotter African climate will likely result in reduced exports and greater dependency on food imports - in a world of more volatile prices. The global intensive meat and dairy industry is a huge polluter (some estimate 18 per cent of total emissions) so there may be opportunities for export of free-range meat from African rangelands. Capture fisheries are in decline and aquaculture also offers growing opportunity.
- b) **Opportunities for improved regional food trade.** Opportunity arises through the World Food Programme (WFP) process of sourcing food within the region, creating a stronger market especially for farmers in districts with seasonal surpluses. Also, there will be opportunity to foster implementation of fair trade and organic produce for import-export at both regional and international levels.
- c) **Opportunities within the forestry industry.** To achieve sustainable products, Africa must establish appropriate institutional capabilities and land-use management programmes to benefit from the long-term financial flows that could be generated by avoided-deforestation (REDD) and afforestation/reforestation. Potential investment in these forestry initiatives are estimated at \$4 to \$7 billion per year for 2015, rising to \$14 to 20 billion per year by 2030.
- d) **Opportunity for developing a sustainable biofuels industry.** Better access to global markets and technology could help build a biofuel industry to meet much of Africa's internal (mainly transport and cooking) needs, and for export. When developing such an industry, land and water constraints must be considered along with respect for food production and deforestation objectives. Biofuel could be a valuable 'transition' fuel along Africa's low-carbon path, providing much needed power for industrial growth and for raising living standards.
- e) **Opportunities in the insurance and financial services industry.** The insurance industry suffered severely in the early stages of global warming as disasters and weather- and water-related insurance claims exploded throughout the world. Now it is viewed as presenting major opportunities for advancing innovative solutions, including Index Insurance and other financial services – an essential part of climate risk management. Benefits are enhanced when insurance is coupled with the multiplication of micro-credit facilities.

- f) *New opportunities through the Green Economy*** will arise through carbon trading and a possible sectoral and programmatic Clean Development Mechanism (CDM). Such re-formulation would allow countries to shift from project-based to sector-based and programmatic approaches, granting carbon credits for emissions reductions relative to these. In addition, to providing an easier path to quantifying emission reductions, sectoral CDM will encourage policy interventions aimed at emission-intensive sectors such as cement, chemicals or transport, and will allow governments to reward high-achieving companies. By reducing the transaction costs for individual companies, this new approach will provide new financing opportunities for sectors that are presently under-represented in the CDM and will encourage the development and registration of small-size CDM projects called programmes of activity (PoAs) as part of a programmatic CDM approach – which could be of advantage to much of Africa.
- g) *Adaptation costs and benefits:*** Existing industrial infrastructure may need protection from greater flood risks and sea-level rise. For example, in Alexandria, which is home to about four million people and is the base of 40 per cent of Egypt’s industrial activities, a sea-level rise of 0.5m would inundate about 30 per cent of the city’s entire area. The economic costs of such an impact are estimated to be in the range of \$US30 billion. Coastal adaptation will cost about \$4 billion for Alexandria and Port Said together.
- h) *Mitigation of emissions*** will be obtained principally through transport fuel substitution and low-carbon electricity production. Heavily polluting industries such as cement manufacture will need to examine increasingly stringent alternatives. Trade-related issues under debate include: (a) liberalization of trade in low-carbon goods (b) intellectual property rights and technology transfer, (c) investment in clean energy technologies and fossil-fuel subsidy reduction, (d) trade law flexibilities for subsidies to address climate change, and (e) border carbon adjustment mechanisms.
- i) *Compatibility with WTO regulations.*** Clearly, WTO rules interact within the various areas of the climate agenda. Therefore, in resolving these trade-related issues, it is important that there is a common understanding that the Copenhagen Accord is now part of the environmental law in which WTO rules operate. Ultimately, the challenge is to ensure that trade policy does not impede legitimate climate-change concerns, while at the same time, climate-change concerns are not used as a pretext to justify trade-protectionist measures. Global trade policies should support clean technology diffusion. Technologies that help reduce emissions should be easily tradable.
- j)** Liberalization of trade in environmental goods and services should help the climate-change agenda. The dissemination of cleaner low-carbon technologies have to be promoted by elimination or reduction of tariff and non-tariff barriers to trade in environmental goods and services. This might be achieved first through focus on ‘unambiguous environmental goods and services’ to help accelerate their liberalization in the WTO Doha round. However, sustained focus on the whole environmental scenario is also needed to help bring greater harmony into the climate-change negotiations.
- k) *Capacity constraints:*** In the current knowledge-based global economy, industrialization is increasingly driven by science, technology and innovation. The ability to develop, acquire, upgrade, and adapt technologies – particularly in relation to low-carbon pathways - is a key element for mitigating emissions and in competing effectively in the global market.
- l) *Water constraint:*** Some industries are major consumers (and polluters) of water such as mining and agro-processing. Water resources are generally scarce and are likely to become more so with climate change – an important factor for selecting and locating industrial developments without disadvantaging water-dependent communities.

- m) Infrastructure **constraints**: Infrastructure in Africa (see Issues Paper 8) is generally weak after decades of investment deficit. Lack of energy restrains industry. Poor transport infrastructure stifles markets, industry and trade. Some of the deficit could be rectified through appropriate investment of climate-adaptation funds. Construction and public works within the infrastructural renewal programmes will provide much long-term employment, sustaining growth, and offering multiple opportunities for innovation, such as low-carbon cement and use of locally-sourced 'green' materials for improved insulation of buildings, for example.

### III. Conclusion

9. The global policy debate on tackling climate change is no longer about whether to take action: it is now about how much action to take, which actions need to be taken first, by whom, with what means (finance) and within what integrator or global framework. TNCs and industry, as emitters and active players in low-carbon foreign investment, are inevitably part of both the problem and the solution to climate change. Africa and many developing nations (the third party) though typically not large emitters of greenhouse gases, can still benefit from low-carbon technologies that could help to enhance their competitiveness in the global export market and accelerate their transition to a Green Economy.

10. Beyond offering opportunities for mitigation, Trade can also play a valuable role in helping humankind adapt to a warmer future. Climate change threatens to alter geographical patterns of production, with food and agricultural products likely to be the most affected. Trade can provide a means to bridge differences in demand and supply, so that countries where climate change creates scarcity are able to meet their needs by importing from countries where these goods and services continue to be available.

11. There could be benefits from the Global Partnership for Low-Carbon Trade and Industry, with a view to harnessing low-carbon foreign investment for sustainable growth and development. Such collaboration would entail setting up clean investment-promotion strategies, dissemination of clean technology, and creation of a single global standard for corporations' disclosure of their greenhouse gas emissions, among others.

### IV. Key questions include:

- a) **Green Economy**: Do new trade and industrial opportunities in the Green Economy need to be elaborated and communicated widely in order to guide future investment strategies by governments and the private sector?
- b) **Sectoral-based CDM**: What are the needs of the African negotiators at UNFCCC to build an informed position on the possibility of a sectoral-based and programmatic CDM and its advantages for trade and industrial development in Africa?
- c) **Climate change, green economy and the World Trade Organization**: How might the dual global processes of climate change and trade negotiations lead to greater success in both domains? Do we have enough understanding on how the principles of common but differentiated responsibility and the special and differential treatment principles in the UNFCCC and WTO negotiations respectively are treated and how they might foster optimal results



for Africa? Although many WTO processes are highly pertinent, such as liberalization of trade and use of environmental technology, goods and services, is there any hope of resolving the issues within a useful timeframe?

- d) **African leadership:** Since the United Nations Economic Commission for Africa (ECA )now houses both the Africa Trade Policy Centre (ATPC) and the Africa Climate Policy Centre (ACPC), it can be assumed that African climate and trade policies will be more coordinated in the future, especially in UNFCCC negotiations. Does leadership on climate change, trade and industry in Africa need strengthening in further ways?
- e) **Industrialization in Africa - continental:** Should the AU programme on the *Acceleration of Africa's Industrialization* incorporate climate-change considerations? For example, do we need standards, compliance and regulatory frameworks to be enforced/included so that industrial developments and building codes will have low-impact, low-carbon and undue risk in a changing climate? Could adaptation and mitigation funds be invested accordingly as part of the 'innovative approaches' foreseen in the programme?
- f) **Industrialization in Africa – subregional:** Should RECs and national governments incorporate climate change considerations within their industrial development frameworks and support for trade? Have national and subregional power plans incorporated the need for sustainable sources to meet the rising demand from growing industries, and the increased risks from hydro-meteorological extremes? Are the RECS sufficiently aware of climate change issues to lead the process?
- g) **Do biofuel and rural market infrastructure need special attention?** Should special consideration be given to developing national biofuel programmes in conjunction with the private sector? What parallel improvements will be needed in improving rural road networks and local-market infrastructure, to promote trade in surplus food production and other products, benefitting rural producers and local industries, traders and consumers?

